

TRANSPORTATION PLAN FOR 2030

EXECUTIVE SUMMARY OF THE TRANSPORTATION PLAN FOR 2030 Methodology Table 1. Socioeconomic Data Summary The Plan Costs and Federal Funding	Page 5 5 5 5 6
INTRODUCTION Local Organization and Process Goals, Objectives and Guiding Principles Local Major Issues Accomplishments from the <i>Transportation Plan for 2025</i> Intermodalism Table 2. CityBus Ridership Summary, 1998-2005 SAFETEA-LU Planning Factors Environmental Justice Assessment	7 7 8 12 13 14 14 15
2. METHODOLOGY Developing Area Wide Forecasts Table 1. Socioeconomic Data Summary Employment Dwelling Units Population Vehicles Forecasts Distributed to Traffic Zones Figure 1. 2030 Forecast of Employment Growth Figure 2. Residential Building Permits, 2001-2005 Figure 3. 2030 Forecast of Dwelling Units Growth	21 21 22 22 22 22 23 24 25 26
3. THE PLAN AND IMPLEMENTATION The Plan Costs Figure 4. Transportation Plan for 2030 Table 3. Project List for the Transportation Plan for 2030 Table 4. Federal Aid Project List for Transportation Plan for 2030 Meeting Community Goals and Objectives Management Systems, TIP, and the Thoroughfare Plan	27 27 27 28 29 31 32 32
Appendices 1. INDOT comments 2. Indiana Strategic Highway Safety Plan 3. Environmental Analysis Introduction Background Figure 1. Tippecanoe County - the 2030 Long Range Planning Area	35 41 45 46 46 47
Analysis Methodology	48

On dellar and a	40
Social Impacts	48
Figure 2. Tippecanoe County National and State Registry of Historic Places	49
Environmental Impacts	50
Figure 3. Tippecanoe County Parks, Open Space Recreational Facilities and Cemeteries	52
Table 1. Active and Candidate Endangered and Threatened Species in Tippecanoe County	54
Table 2. Projects Crossing the 100 year and /or the 500 year Flood Hazard Zone	55
Figure 4. Lafayette (Teays) Bedrock Valley in the State of Indiana	57
Table 3. Tippecanoe County Impaired Water Bodies	58
Figure 5. Tippecanoe County Hydrologic Features and Wetlands	59
Table 4. Transportation Plan for 2030 Projects in Close Proximity of Wetlands	60
Table 5. Active Superfund Site Information for Tippecanoe County (2007)	61
Table 6. Transportation Plan for 2030 Projects in Close Proximity of Possible Leaking Underground Storage Tanks	62
Conclusion	63
Environmental Justice Mapping	65
5. Community Involvement, Review and Adoption	73
Adopting Resolution	93
6. Traffic Zones	95
7. Detailed Socioeconomic Data	99
8. Methodology for Calculating Year of Construction Project Costs and Federal Aid	113

EXECUTIVE SUMMARY OF THE TRANSPORTATION PLAN FOR 2030.

The transportation plan is a cornerstone of the adopted *Comprehensive Plan for Tippecanoe County;* it supports, and is supported by its other components. Transportation planning has its origin in the 1960's when initial planning studies culminated in the first adopted Plan in 1978 that documented needs through the year 2000. Most recently the *Transportation Plan for 2025* was adopted in 2001 and projected needs to the year 2025. The *Transportation Plan for 2030* will be the fourth since the original 1978 Plan and documents community needs to the year 2030. The Plan was amended in 2007 to comply with provisions of the new Safe, Accountable, Flexible, Efficient Transportation Equity Act: A legacy for Users (SAFETEA-LU).

METHODOLOGY

The methodology for this Plan is different from past plans, by more closely building on the foundation of the community's previous transportation plans. The list of projects in the 2030 Plan originates from two sources: projects yet to be implemented from the existing *Transportation Plan for 2025* and recommendations from the Citizen, Transportation Study, and Technical Committees. It is based on historic trends, current circumstances including congestion and safety issues, and forecasts of dwelling units and employment growth areas.

Forecasts of future population and employment growth were developed by the APC staff after reviewing past forecasts, other current estimates, and consultations with community leaders (Table 1, Socioeconomic Data Summary). Based on current trends, overall growth is expected to continue. Current residential development patterns show major growth has occurred to the south and east of Lafayette, and to the north and northwest of West Lafayette. This pattern of development is expected to continue. The dwelling unit forecasts were based in part on existing development activity which documents that the community has over 10,500 dwelling units in the approved pipeline. Employment forecasts were based on existing trends, and finalized in conjunction with local economic development leaders.

Table 1. Socioeconomic Data Summary

	<u> 1970</u>	<u>1980</u>	<u>1990</u>	2000	2030 est.
Total Population	109,378	121,702	130,598	148,955	216,832
Total # of Dwelling Units	34,197	43,130	48,134	58,343	95,616
Number of Households	32,320	40,681	45,618	55,266	89,647
Persons per Household	3.00	2.59	2.50	2.42	2.25
Total Employment	52,015	64,915	80,290	99,143	120,000
Vehicles	49,053	68,460	83,690	106,504	179,274
Vehicles per Household	1.52	1.68	1.83	1.93	2.0

Source: U.S. Department of Commerce: Bureau of the Census, Census of Population and Housing, and Bureau of Economic Analysis, Regional Economic Information Systems; Division of Housing and Food Services, Purdue University, APC Land Use Survey; and APC Staff Analysis,

THE PLAN

The 2030 Transportation Plan (Figure 4, Transportation Plan for 2030 on page 28, and Table 3, Project List for the Transportation Plan for 2030 on page 29) continues the long range planning emphasis from previous Plans by creating additional alternatives routes, such as circumferential streets, to divert traffic off existing congested streets. It recommends improving circulation

through expanding and upgrading the road network to make it safer and more efficient, and contains a detailed list of projects. The Plan documents recent progress, emerging transportation issues, and future concerns the community will need to address.

The Plan is a joint effort by the staffs of the Area Plan Commission (APC), Tippecanoe County, Lafayette, and West Lafayette, with input from Purdue University, the local transit provider (CityBus) and the Indiana Department of Transportation. The Plan has been reviewed and approved by the Area Plan Commission and its Citizen Participation, Transportation Study, Technical, and Administrative Committees. INDOT maintains a separate list of needed improvements for State highways; the Plan supports those state projects. However, the community has identified additional needs not yet included in the State's schedule; those have been included in the Plan for illustrative purposes. The list of those state projects is contained in a letter from INDOT, included as Appendix 1, INDOT Comments with an accompanying map. This and all APC plans are available on the web at http://www.tippecanoe.in.gov/apc/ as well in the APC office. Maps contained in the print edition of the Plan are small sized. The web edition allows for more in depth viewing if mapping details are needed.

COSTS AND FEDERAL FUNDING

Obtaining the financial resources to implement the projects in the Plan will be the greatest challenge facing the community's transportation needs. As listed in Table 3, Project List for the Transportation Plan for 2030, the estimated cost of all highway projects in the Transportation Plan for 2030 is almost two billion dollars (\$1,913,433,000).

One of the primary funding sources for improvements to the transportation system is from the U.S. Department of Transportation. With the uncertainties in Federal funding beyond SAFETEA-LU (the current federal highway act) we can only estimate the nature and level of Federal funding that will be available over the next 24 years. This Plan is fiscally constrained because it anticipates requesting Federal STP funds within a range of what this community might reasonably expect to receive (assuming a 2% growth in Federal funding each year starting with the average of the last three years and an allowable overprograming of up to 10%) through 2030. However, the needs for highway and transit improvements far outpace our ability to fund them. If those needs are to be met, additional funding sources need to be obtained.

The Transportation Plan for 2030 is a comprehensive assessment of the communities needs and proposes solutions to meet our major transportation problems. This Plan is a tool that prepares the community to make the necessary improvements to our road network as funds become available.

Chapter 1

INTRODUCTION

The *Transportation Plan for 2030*, as part of the *Comprehensive Plan for Tippecanoe County*, builds on 30 years of experience starting with the completion of the original Transportation Plan in 1978. This document represents the forth update to the original Plan and becomes part of the continuous process of planning and implementation which provides our growing community the transportation improvements it so clearly needs.

This Plan, like its predecessors, is the product of a cooperative and comprehensive effort involving public officials, agency staffs and citizens of the community. The process which has generated the listing of solutions to our major issues, and ultimately the plan itself, has been discussed and evaluated in open forums, through the efforts of the Area Plan Commission of Tippecanoe County and its staff.

All draft documents, final reports, transportation plans, TIPs and presentations use maps, graphics and other ways to visualize information to the fullest extent possible to better communicate concepts and ideas. Visualization techniques will employ the use of PowerPoint presentations, color graphic handouts, and the use of advanced cartographic techniques to display information in an easy to understand format. As has been done in the past, the MPO will create a popular brochure of the transportation plan as a way for the public to better understand the plan. All future transportation plans and programs will contain additional maps of individual projects supplemented with more detailed descriptions.

The APC web site currently provides traffic count data that takes advantage of GIS functionality. *The Transportation Plan for 2030* and the *TIP* will also be displayed interactively on the web site and provide more detailed project level information. In the near future crash data, the Thoroughfare Plan, and HPMS data will also be presented interactively. New technologies and techniques will be employed to display projects and plans. Decisions regarding fly-through and 3D rendering will be based on efficiency, cost effectiveness and benefit to the public.

LOCAL ORGANIZATION AND PROCESS

The Area Plan Commission of Tippecanoe County is designated by the Governor to be the official Metropolitan Planning Organization (MPO). Thus, in addition to local and state mandated functions related to planning and zoning, the agency is responsible for local transportation planning and for review of all federal highway and transit assisted projects and programs within the County. The Executive Director and planning staff carry out a variety of technical tasks that support the transportation planning functions.

Area Plan Commission decisions are informed by four standing committees (Administrative, Technical Transportation, Transportation Study, and Citizen Participation) created to oversee the planning process and to advise on important decisions and resolutions. Each was heavily involved in the process culminating in this Plan Update.

 The Administrative Committee provides the counsel of elected and appointed officials involved with policy, administrative and fiscal decisions. Members of this committee ultimately have important responsibilities for implementing the plan's recommendations. The committee meets as needed in open advertised public meetings.

- The Technical Transportation Committee provides the advice and knowledge of various agency engineers, planners, traffic police, transit operator, Purdue University and the Purdue Airport, and INDOT. Members have important responsibilities for designing, operating, and maintaining the transportation system. The Committee meets every month in open advertised public meetings.
- The Transportation Study Committee is comprised of four members from the Area Plan Commission. They are charged with providing advice to the APC staff related to the agency's transportation program. The committee meets as needed in open advertised public meetings.
- The Citizen Participation Committee provides ideas and comments from a representative group of persons from throughout the private sector of the community. These citizens provide important observations in evaluating and suggesting projects. The Committee meets approximately every other month and has a roster mailing of over 50 which includes neighborhood organizations, minority organizations, League of Women Voters, all local media, and other interest groups.

Review and adoption of the *Transportation Plan for 2030* was accomplished during the winter of 2005-2006 through input by the Administrative Committee, Citizen Participation Committee, Transportation Study, and the Technical Transportation Committee. Suggestions and comments throughout the review period were incorporated in the Plan where appropriate. In early 2007 the Plan was amended by the Area Plan Commission to incorporate new federal requirements from SAFETEA-LU with input from the Citizen, Technical and Administrative Committees.

GOALS, OBJECTIVES, AND GUIDING PRINCIPLES

The goals and objectives that give direction to comprehensive planning in Tippecanoe County were generated through the efforts of the Citizen Participation Committee in 1976. That effort reached hundreds of citizens and culminated in the adoption of the following goals and objectives that guided the original 1978 Transportation Plan, the 1981 Comprehensive Plan for Tippecanoe County and all subsequent APC plans. The Citizen Participation Committee revisited the goals and objectives in 2005 and updated those associated with transportation.

Transportation

Goal:

1. Develop a coordinated, safe, and interrelated transportation system, integrating thoroughfares, public mass transit, air facilities, passenger and freight rail service, pedestrian and bike ways to adequately serve the entire community, compatible with anticipated land use, economic development, financial resources, and cooperative governmental and citizen action; linking Tippecanoe County, Lafayette and West Lafayette with each other and to the region, state and nation.

- Plan for, design and develop an equitable multi-modal transportation system.
- Develop an area-wide circulation network to accommodate present and anticipated future travel demands.
- Provide maximum accessibility and connectivity to the area's major activity centers.
- Upgrade and improve, where possible, existing thoroughfares to promote more efficient means of travel.
- Require that improvement projects utilize modern safety and design standards to minimize conflicts between all modes of transportation.

- Encourage the development of a multi-modal transportation network that diverts through traffic away from residential neighborhoods while providing accessibility without becoming a barrier.
- Reduce and/or eliminate at-grade railroad crossings where possible.
- Reduce negative environmental effects in future transportation systems by recognizing social, environmental, and historical values of the community.
- Reduce and/or eliminate barriers between all transportation modes.
- Decrease the dependency on motorized vehicles and promote the reduction of single occupant vehicles.

Public Facilities and Services

Goals:

1. Utilities as the precursor and basic determinant of development in the growth sectors should be properly timed, adequately designed and efficiently administered for the best cost-benefit relationship.

Objectives:

- Provide services to meet minimum standards of federal environmental guidelines for the urbanized area and rural communities of Tippecanoe County.
- Coordinate extensions of services to encourage concentrated development at the growth perimeters for greater efficiency.
- Require proper sizing of lines and facilities for ultimate densities in natural drainage basins, if it is not prohibitive for more immediate consideration of solving existing problems.
- 2. Utilize recreational resources, facilities and programs to provide adequate recreational opportunity for all age groups and income groups in the community.

Objectives:

- Establish a hierarchy of recreational demands on the basis of relative proximity. The young and the old have shorter radii of movement compared to the highly mobile middle range of age groups.
- Emphasize the public use and ultimate acquisition of the natural corridors along the flood plains of the Wabash River and Wildcat Creek.
- Coordinate the plans of the county and cities toward an area wide goal of recreational development, each take care of the neighborhood needs under their jurisdiction.

Environmental Considerations

Goals:

1. Promote public pride and consideration for the environment including protection of natural and scenic areas and preservation of prime agricultural land.

- Protect sensitive environmental areas.
- Preserve open spaces and natural areas.
- Improve water and air quality.
- Preserve prime agricultural land.
- Reduce negative environmental impacts by initially avoiding, then minimizing, and if necessary mitigating.
- 2. Promote only that development which is compatible with the soil types and drainage patterns. Objectives:
 - Consider soil types in the planning process.

- Provide better planning for surface drainage for proposed and existing facilities.
- Require more thorough percolation tests.
- Allow septic tanks only on the most suitable soils.
- Establish better watershed control between counties.
- 3. Encourage a full scale recycling program county-wide, especially for rural areas.

Objectives:

- Establish planned pick-up for non-standard trash.
- Encourage waste recycling such as glass, paper, cloth, aluminum, etc.
- Promote the establishment of sanitary land fill sites which can be reconverted to a useful purpose when filled.
- Create more organized rural solid waste collection.

Planning

Goals:

1. Develop an ongoing planning process which is concerned with the interrelationships of physical growth, community facility needs, natural and man made environments, and the needs of people.

Objectives:

- Establish and encourage the support for an ongoing planning process.
- Include the coordination of physical and human needs in planning.
- Provide the means for complete planning of subdivisions, churches, schools, commercial facilities and recreational needs.
- In considering developmental proposals, place more emphasis on factors such as environmental and human resources.
- In overall planning as well a specific site planning stress aesthetics.
- 2. Establish a system of intergovernmental coordination in the planning for the provision of community facilities and services.

Objectives:

- To the extent possible, try to get the total involvement of the community in planning through broader public information and increased public education of the planning process.
- Define community needs and goals before new planning is initiated.
- Consider the effects of growth and educational facilities, the local tax structure, on the transportation system, etc., as part of overall planning.
- Improve the disbursement of information about the activities of governmental agencies to the general public.
- Attempt to shift the planning processes from a negative to a positive force in guiding growth and development on the community.
- 3. Develop land use controls which are responsive to the planning process, flexible to the extent that they can react to changes in development patterns and techniques and which recognize the natural constraints of the land.

Objectives:

- To the extent possible, zone land in conformance with existing uses rather than creating non-conforming uses.
- Complete and enforce a master plan along with the appropriate land use regulations.
- 4. Provide a continuing basis for support for the Area Plan Commission and its staff both from the aspect of continued overall community concern as well as adequate program financing.

- Try to maintain membership on the Area Plan Commission of private citizens and elected officials who have a deep seated commitment to community planning.
- Provide the funds necessary to maintain the Area Plan Commission staff.
- In making long range considerations utilize the expertise of many fields in order to obtain a balanced perspective.

Residential Development

Goal:

1. Protect the quality of existing residential areas, and encourage the orderly and regulated development of housing suitable to the needs of the local housing market.

Objectives:

- Provide suitable and affordable housing for lower income families and the elderly.
- Ensure orderly planning and regulations of new housing units in subdivisions.
- Protect and preserve existing neighborhoods and provide adequate services for new neighborhoods.

Economic Growth

Goal:

1. Support orderly, manageable industrial and commercial development that will encourage the economic growth and well being of Lafayette, West Lafayette, and Tippecanoe County.

Objectives:

- Encourage vocational and technical training as a means of increasing job opportunities.
- Assign industrial and commercial growth areas as a part of the comprehensive Land Use Plan in conjunction with transportation and utility expansion.
- Encourage the development of neighborhood shopping facilities, specifically for the elderly, handicapped and economically disadvantaged.
- Discourage the further development of "strip commercial" areas.
- Provide protection for existing land uses as industrial and commercial growth continues.
- Protect the integrity and economic well being of the rural communities in Tipecanoe County.
- 2. Strengthen the downtown Lafayette area as a vital city center with emphasis as the major professional and cultural center for Tippecanoe County.

Objectives:

- Revitalize the Lafayette downtown area as a means of achieving rational developmental patterns.
- Encourage rehabilitation of the residential areas surrounding the central business district.
- Protect the existing shopping facilities in the central business district.
- 3. Provide educational opportunity at all levels with varied emphasis to meet the demands of a changing social and economic structure and an environment conducive to physical and mental growth.

- Consider the consolidation of existing systems of the contracting of services between areas of high density and low density school populations.
- Expand the scope and capacities of vocational education programs to meet the higher demand for skilled and professional workers in our changing economy.

4. Provide better public and social services by hiring qualified personnel, coordinating similar facilities, evaluating the scope of need and utilizing federal, state and local monies to the best advantage.

Objectives:

- Re-establish the faith and reliance of the public toward our criminal justice system.
- Simplify governmental procedures and activities for clearer understanding and quicker processing, without loss of controls.
- Coordination of activities between the municipalities and the County to provide consistent and compatible discussions on similar topics.
- Obtain needed fund by matching local funds with state and federal funds and finance needed programs and facilities.

Additionally, the *Tippecanoe County Bicycle and Pedestrian Plan*, adopted in 1997, has the following objectives:

- 1. Education/Promotion: Community wide awareness, for all modes of transportation, on the rules, rights, responsibilities and benefits of sharing the road.
- Planning: Develop a master plan for the whole community with proposed projects to be incorporated with the policies set forth in the bicycle/pedestrian plan. A primary goal in developing the master plan will be to create a plan and policy document which will produce results with sellable, doable, sensible projects.
- Safety: Make our community's transportation network a safe and friendly place for nonmotorists to travel.
- 4. Infrastructure/Facilities: Establish a frame work within which proposed bicycle/ pedestrian facilities will be funded.

The Indiana Department of Transportation has adopted an Indiana Strategic Highway Safety Plan to "Make Indiana's highways safer to drive, walk, and bike through a continually improving process of generating data-driven decisions identifying where infrastructure safety improvement projects are most needed, how best to educate our drivers, improve enforcement of our traffic laws, and how to ensure a swift response to save lives and ease suffering." The Plan provides a state perspective of highway safety and is incorporated into this plan with a summary of its goals and objectives in Appendix 2.

LOCAL MAJOR ISSUES

While this Plan makes specific project recommendations, the following issues are larger than a single project and affect the long term health and quality of life of this community:

- Completion of the Hoosier Heartland Corridor is long overdue and will significantly improve safety for all road users. It will provide better access and improve freight movement into and out of the community.
- Completion of US-231 around the west side of West Lafayette will significantly improve access to Purdue University and relieve congestion at several locations in West Lafayette.
- Critical Capacity and Safety locations need to be addressed in the community. Most notably on SR-26 from Earl Avenue to I-65, and on US-52 from Yeager to Morehouse Road.
- Continued emphasis on circumferential routes that will provide alternatives for existing congested streets, whether by improving existing roads or new construction.
- Changing from rural to urban road cross-sections with curb, gutter, sidewalk and trails is essential to catch up with development in several urban growth areas.

- Adequate funding for needed improvement. Even with the recent expectation of increased state assistance, the needs identified in the Plan exceed the available funding options.
- Continued health of CityBus.
- Bicycle and pedestrian facilities need to be expanded to provide a more viable alternative. An update of the current Bicycle and Pedestrian Plan is scheduled in the MPO work program.
- Intermodal transportation considerations are a growing issue because of a healthy economy, the vitality of the railroads in this community, the presence of the Purdue University Airport, and the increase in truck traffic on our highways.

ACCOMPLISHMENTS FROM THE 2025 PLAN

Since the completion of the most recent transportation plan in 2001, there has been significant progress in implanting needed road improvements.

The following projects have been completed:

- Twyckenham from Old Romney Road to 18th Street
- 18th Street from Brady Lane to CR 350 South
- CR 430 South from 9th to 18th Streets
- Farbee Drive from Kossuth Street to SR 26
- Shenandoah Drive from Union to Rome Drive
- Erie Street from 18th Street to Underwood Street
- N 9th Street from Greenbush to south of US 52
- CR 550 E from SR 26 to McCarty Lane
- McCarty Lane from CR 500 E to CR 550 E and a new bridge over I-65
- Stable Drive from CR 500 E to CR 550 E
- CR 200 S from Dayton Road to CR 900E
- Kalberer Road from Soldiers Home Road to Salisbury Street
- Lindberg Road from McCormick to Northwestern (US 231)
- US 231 from SR 26 to the Wabash River Bridge
- South River Road from Granville Road to CR 300 W
- CR 200N from CR 500 E to CR 600 E

The following projects are currently under construction:

- Brady Lane from 18th Street to US 52
- Greenbush from US 52 to Creasy Lane
- Park East Blvd extended to McCarty Lane
- SR 43 from I-65 to CR 725 N
- Tapawingo Drive South from SR 26 to US 231

The following Projects are currently in design or right-of-way:

- Hoosier Heartland Corridor from Lafayette to Delphi
- US 231 from South River Rd to US 52
- Cumberland Avenue extension to Klondike Road

- Concord Road from Brady to CR 350 S
- South River Road West of CR350
- McCarty Lane extension to SR-26

INTERMODAL COMPONENTS

The transportation goals of the MPO were adopted by a broad based grass roots planning effort and strongly emphasize multiple modes of transportation as evidenced by the adopted goals and objectives. This Plan continues to build on the foundation of previous Transportation Plans that advocate and encourage the use of alternatives to the automobile.

Bicycle and Pedestrian

The adopted Bicycle and Pedestrian Plan continues to play a major role in both Cities and the County. All jurisdictions have applied for special enhancement funding, and several have been successful. Both Cities, as well as the County, are placing greater emphasis on bicycle and pedestrian travel. The City of West Lafayette has been successful in building major portions of a loop system around the City, and Lafayette has extended the Wabash Heritage Trail as well as portions of their Linear Park trail from Beck Lane to 18th Street along railroad right-of-way.

This Plan recognizes that improvements go beyond individual trails and paths to include the design of road improvements and new construction to meet the needs of multiple "design cyclists". All future improvement needs to include sidewalks, bicycle lanes or a combination of the two, where appropriate.

Air

The Purdue Airport continues to be the second busiest airport in Indiana with approximately 115,000 take-offs and landings. It is a public use airport that supports teaching, research, and has over 100 based aircraft. The Master Airport Plan was updated in 2001 and is scheduled to be updated again in 2011. Repair and maintenance improvements continue to be completed in compliance with the long-term Master Airport Plan which ultimately will relocate the terminal building to a site near the intersection of US 231 and SR 26 just east of the runways.

Transit

Since the restored historic railroad Depot was relocated to the foot of Main Street it serves as a multi-modal terminal facility serving: AMTRAK, inter-city buses, CityBus (the local transit provider) and taxi service. Additionally it serves as a trail head for bicycle and pedestrian trails that extend from this hub on the banks of the Wabash River. The primary information center for CityBus is housed in its lower level, and CityBus has expanded the impact of this hub by building a childcare center nearby.

CityBus continues as the primary source of public transportation in our urban area. Mass transit, even at CityBus's scale, adds flexibility to our urban area transportation system and provides a viable alternative to the automobile. It represents an energy efficient way to travel, and increases mobility of the young, the poor, the elderly and the handicapped. The system continues to be successful, by expanding service and increasing ridership (Table 2, CityBus Ridership Summary, 1998-2005). Routes continue to be monitored, modified and created to meet the emerging needs.

As a means to reduce parking and congestion on the Purdue Campus, the University and CityBus's agreement to allow unlimited bus use has been highly successful allowing students, facility, and staff to ride anywhere in Greater Lafayette by simply showing an ID card. Currently the Corporation is analyzing the growth areas on the south and east sides of the community to assess how best to provide service. In 2000, the CityBus Board of Directors approved a

Table 2. CityBus Ridership Summary, 1998-2005

<u>Year</u>	<u>Riders</u>	Percent Increase
1999	2,135,333	25.93%
2000	2,861,573	34.01%
2001	3,182,325	11.21%
2002	3,579,053	12.47%
2003	3,910,057	9.29%
2004	4,255,571	8.84%
2005	4,301,043	1.07%

Strategic Plan. Unlike the five year Transportation Development Plan, it is designed to provide broad policy guidance to the Corporation over the next several years. The plan sets out four goals:

- Increase the number of transit riders by promoting more transit-friendly development and transportation policies.
- Plan for growth: fleet and maintenance infrastructure.
- Improve the ease and use of public transportation by using available technology.
- Maximize funding sources to meet daily service levels and provide necessary capital improvements.

SAFETEA-LU PLANNING FACTORS

This plan has been prepared to comply with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). As such Metropolitan Planning Organizations are required to consider and include the following seven goals in developing transportation plans and programs:

Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency

This Plan is part of the *Comprehensive Plan for Tippecanoe County* that was adopted in 1981 and provides for orderly growth and provision of services to all of Tippecanoe County. Goals adopted in the *Comprehensive Plan for Tippecanoe County* acknowledged the historically strong local economy and transportation's role in supporting economic development. This Plan continues those specific goals and objectives. All of the components of the Comprehensive Plan strengthen the connections between different modes of transportation and includes not only the Transportation Plan, but also a: Thoroughfare Plan, Bicycle and Pedestrian Plan, Land Use Plan, Housing Plan, Neighborhood Plans and a Parks and Recreation Plan.

The *Transportation Plan for 2030* seeks to: reduce travel time, maintain on-time delivery service, and reduce lost productivity by strengthening and improving the network circulation. One objective this Plan incorporates is connectivity and ease of movement by persons and goods in and through the area. It continues to develop multiple circumferential ring road systems around the community, and strengthen the cross routes. Improvements to the major corridors that bring commuter traffic from surrounding counties are specifically targeted.

Increase the safety of the transportation system for motorized and nonmotorized users.

This Plan continues to emphasize increased safety for both motorized and non-motorized users in the following ways:

 Current and historic vehicle crash analysis was considered in the development of the list of projects in the Plan.

- The Plan encourages development of a highway system that diverts through traffic away from residential neighborhoods while still providing accessibility.
- The projects contained in the Plan reduce congestion by providing alternative routes to satisfy user needs. With reduced congestion, conflicts are reduced and safety is enhanced.
- For all road improvements, industry safety and design standards, as well as those delineated in the Thoroughfare Plan, are required.
- In addition to road design standards, all improvement projects incorporate safety considerations for bicyclists and pedestrians through the adopted transportation goal to encourage provisions for all modes of travel.
- The Plan advocates construction of grade separations to reduce motor vehicle and train conflicts.
- The Plan includes implementation of projects identified in the Transit Development Plan and the Bicycle and Pedestrian Plan, such as context sensitive design measures for pedestrian and bicycle safety around Purdue.

The Greater Lafayette Public Transit Corporation (CityBus) has several safety programs and meets FTA requirements that it spend 1% of its funding on safety and security. Efforts are focused on worker health and safety, driver training, and passenger safety. CityBus promotes Federal Transit Authority's "Transit Watch - if you see something, say something" to encourage riders to be a part of overall safety.

The Indiana Department of Transportation has developed a *Strategic Highway Safety Plan* whose goal is to reduce traffic crash fatalities. The Plan is consistent with the goals and objectives of this community and is summarized in Appendix 2.

Increase the security of the transportation system for motorized, nonmotorized and transit users.

The APC works closely with the Tippecanoe County Emergency Management Agency (TEMA) and is represented on its Planning Committee by the Executive Director. TEMA has an adopted Comprehensive Emergency Management Plan. In conjunction with TEMA the APC completed a Multi-Hazard Mitigation Plan (MHMP) in 2006. This plan is a requirement of the federal Disaster Mitigation Act of 2000 and has been adopted by the APC and its member jurisdictions as a part of the Comprehensive Plan of Tippecanoe County. The Plan provides a comprehensive assessment of how specific hazards affect the community, adopts mitigation goals for each hazard, and proposes solutions to prevent future damage caused by natural and manmade hazards. It represents a proactive tool to reduce personal and property damage and its implementation will reduce costs to local, state and federal governments. Additionally, the plan's existence ensures a wealth of readily available information to local governments, emergency service departments and area citizens through the county's GIS web site, with additional information available in its Management Information Technology Services Department.

TEMA is the lead county agency for security issues and the APC will continue to play a supporting role providing them with assistance as needed. APC looks forward to working with them to implement, broaden and update the MHMP and bring greater focus to transportation issues.

The Greater Lafayette Public Transit Corporation (CityBus) has several security strategies in operation. Access control, and surveillance and monitoring of fixed, on-site office and maintenance facilities are currently employed strategies. Operations include Computer Aided Dispatching as well as Automatic Vehicle Locator technology. Additionally, CityBus has finished

an emergency preparedness plan containing mitigation strategies for manmade and natural disasters.

Increase the accessibility and mobility options available to people and freight.

This Plan strengthens and creates accessibility on two distinct levels. One focuses on improving the continuity of the road network. The other provides additional connections and improvements between modes of travel. All citizens, travelers, and businesses benefit from this dual approach.

Improving travel time is of the utmost concern for moving both people and freight. This Plan reduces travel and delivery time by increasing accessibility through the development of circular or ring road systems with major radial connections. Improvements are also targeted for the corridors that connect to and from other counties and states.

Increasing bicycle and pedestrian mobility, as well as the safety of transit riders is advanced because all proposed road improvements are required to include provisions for these two modes. When sidewalks are available it is safer for transit users and provides more options for bicyclists and pedestrians.

Protect and enhance the environment, promote energy conservation, and improve quality of life.

This Plan incorporates these three goals by being part of the Comprehensive Plan for Tippecanoe County which guides all future development into a more compact pattern to reduce urban sprawl. Benefits include less travel, less fuel consumption, and a cleaner environment that combine to enhance the quality of life. The community's Goals and Objectives state that any environmental impacts will follow the policy to avoid, minimize, and mitigate. A comparison of the Transportation Plan for 2030 with conservation plans, environmental analyses, and inventories of natural and historic resources is contained in Appendix 3. The results are forwarded to local agencies for their consideration during environmental assessments and for discussion with State and federal conservation, environmental, and historic agencies. All Federal Aid construction projects follow applicable INDOT, FHWA, IDEM, and EPA guidelines regarding environmental protection.

This Plan builds on the multi-modal foundation of previous plans. Transit use, bicycling, and walking continue to play a greater role in this community, and this plan advocates for even more intermodal facilities. Not only do new road improvements incorporate these modes of travel, this Plan and the other elements of the Comprehensive Plan for Tippecanoe County contain improvements specifically for these modes. Multi-modal travel promotes energy conservation and improves the quality of life. The Plan also advocates the use of joint corridors and corridor reuse wherever possible by using existing corridors for new construction and road widening.

Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

As part of the original 1978 transportation plan, citizens established an objective to develop an area-wide circulation network to accommodate present and anticipated future traffic demands. This Plan continues to recommend projects that strengthen connections throughout the community by advancing ring and radial routing that connect all National Highway System Roads, as well as major principal corridor arterials in both cities.

The *Transportation Plan for 2030* builds upon the multi-modal plans and programs of previous plans. Transit use, bicycling, and walking play a increased role in this community and this plan advocates for better pedestrian facilities to transit stops and well as bicycle facilities for transportation purposes. The APC works closely with CityBus to assist them in serving the

community, because multi-modal travel not only promotes energy conservation it also improves the quality of life.

Promote efficient system management and operation

This goal stresses the need to improve the performance of our existing transportation facilities so as to maximize safety and mobility, and relieve congestion. In this community the management systems are primarily roadway, bridge, and transit programs. These start with continued monitoring and maintenance of the system, identification of deficiencies, and then targeting specific projects such as traffic engineering projects, access management plans, reduction or elimination of rail/street crossings, and ultimately in future budgets and the Transportation Improvement Program.

Lafayette, West Lafayette and Tippecanoe County have roadway management systems that seek to preserve existing transportation facilities through maintenance and repair programs as well as to utilize existing transportation facilities more efficiently (e.g., signal coordination, pavement marking, and intersection improvements). Additionally Tippecanoe County has a bridge inventory and management system, and part of West Lafayette's roadway management system addresses its Americans with Disabilities Act needs. All use their systems to document and establish priorities.

CityBus has adopted several strong system management practices that promote safety, mobility, and more efficiently use their existing transportation infrastructure. Ridership increases are evidence that their aggressive programs of fleet maintenance and acquisition, marketing, schedule adherence, and strategic planning contribute to a system that successfully provides an alternative to the automobile.

The concept of corridor reuse and joint corridor use also enhances our existing transportation facilities. There are few new corridors in the *Transportation Plan for 2030*, and most improvements utilize existing corridors or are short extensions of existing facilities that providing greater connectivity to the transportation system. Most projects in the community include adding travel lanes and utilize existing corridor. The Hoosier Heartland corridor shares an alignment with the current Norfolk Southern tracks, thus placing two modes in one corridor, and reducing both the number of road crossings as well as rail crossings. Additionally, the new ring roads around Purdue University primarily utilize existing facilities.

Preserve the existing transportation system.

This Plan recognizes that the community can not build its way out of congestion, which is environmentally, physically and fiscally irresponsible. The plan promotes the preservation of existing transportation facilities through continued maintenance and repair programs and to utilize existing transportation facilities more efficiently. The management and operations systems that member jurisdiction currently utilize preserve and protect the communities' investments in their infrastructure. The Transportation Improvement Program tracks the revenues and costs needed to maintain and protect those roadway and transit assets.

Most road improvements in the community use existing, not new, corridors by removing parking or widening to increase capacity. Several roads will be reconstructed within existing corridors such as the Purdue ring roads, portions of McCormick Rd, and the Hoosier Heartland. Many of the recommended projects follow land use changes and roads originally built as rural cross sections now needs to be updated to urban cross sections with sidewalks and bicycle facilities.

ENVIRONMENTAL JUSTICE ASSESSMENT

A recent area of concern at the national level has been to ensure that proposed improvements in this Plan would not disproportionately impact minorities (African American, Hispanic, Asian,

and American Indian) and persons of low income, commonly known as the three principles of Environmental Justice. This assessment further amplifies and strengthens Title VI.

Specific steps were developed for this Plan. Each step addresses a specific goal. Proposed improvements were evaluated relative to Census blocks that have a higher than average number of minorities or persons of low income. Additional outreach to minority groups has been accomplished through our public involvement process. After assessment, indicating minimal or no impact, then proposed projects are scheduled based on need and funding.

Principal One: Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.

To identify whether a project disproportionately impacts minority and low income persons, two levels of analysis were conducted: macro and micro. On a macro level, projects were evaluated and if there was an impact they were further evaluated on a micro level (Appendix 4).

For the macro review, maps were created showing the proposed improvements and areas of concentrated minority group and/or low-income population based on the 2000 Census data at block level. These maps highlight those blocks demonstrating higher than average target populations. Projects that were: located in blocks with less than average target populations, under construction, starting construction shortly, or that will be funded using only local funding, were not forwarded to the micro level review.

A micro review was then conducted for projects that may have an environmental justice concern. Using aerial photos from 2002, projects were examined individually. Each project was evaluated according to the nine concerns: displacement of residents; increase in noise and air pollution; creation of barriers in neighborhoods; destruction of natural habitat; reduction in access to transit; displacement of persons, businesses, farms, nonprofit organizations; increase in traffic congestion; and isolation.

Results of the micro review range from as many as five concerns per project to none. Most of the impacts are due to road widening types of improvements that involve dislocations and relocations. In the urban area the impacts also included potential barriers between neighborhoods and increase noise and air pollution, with rural and urban edge areas involving natural habitats. Almost 70% of projects have two or fewer potential impacts. There are three projects that scored five concerns; four projects scored four and four projects that were determined to have three areas of concern.

These issues will be addressed in the environmental phase of each project. Proper engineering will be able to mitigate some of the issues, and reducing the right-of-way where appropriate may reduce the dislocation of residents and businesses. Many of the projects involve widening corridors that already exist, and mitigation measures can be employed to minimize negative impacts.

Principal Two: Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

There were multiple opportunities for potentially affected parties to have a voice in the decision making process used in creating this Plan. Discussions about the Plan began with the Citizen Participation Committee while members were reviewing proposed revisions to the Thoroughfare Plan in 2005. At the next meeting a list of proposed projects was brought back to CPC for its input as was the final *Transportation Plan for 2030* at a formal public hearing and vote to recommend it to APC. Press releases were sent to local media resulting in meetings being listed in the local meeting section. The press attended and reported the latter two meetings. Comments received are included in Appendix 5 Citizen Comments

Two open public meetings of the Area Plan Commissions' Transportation Study Committee were held to review the data, projects and direction, and to seek input on the Plan and the process.

The Technical Transportation Committee assisted with the Plan development at three regular meetings to review development patterns and socioeconomic information, recommend additional projects to be incorporated into the Plan, to prioritize the projects, and recommend the Plan to the APC. The meetings were open forum public meetings and were covered by both broadcast and print media.

Input from the Administrative Committee was obtained at two public meetings; both covered by print and broadcast media.

Principal Three: Prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations.

Projects proposed in this Plan were identified from deficiencies shown in earlier traffic modeling and through public input and comment. The phasing of projects was based on need and anticipated financing.

Chapter 2

METHODOLOGY

DEVELOPING AREA WIDE FORECASTS

The methodology for this Plan is slightly different than past efforts, but uses and builds on the community's earlier Transportation Plans. In previous plans, area wide traffic forecasts were simulated using a computer model based on socioeconomic forecasts, road deficiencies would be noted, and construction projects identified to correct those deficiencies. The forecasted traffic volumes and deficiencies documented in the *Transportation Plan for 2025* are still valid and were used as inputs into this Plan.

Since there was an ample list of projects from the 2025 plan, consistent community development allowing needs to be easily identified, and time and staffing constraints, it was decided to forgo forecasting area traffic volumes. Rather, a streamlined planning process was devised that:

- Updated the forecasted socioeconomic information,
- Built on the projects contained in the 2025 Plan, and then
- Used APC's existing committee structure to obtain technical and community input to identify deficiencies to meet the community's needs to 2030.

Area wide socioeconomic forecasts to the year 2030 were completed showing growth in dwelling units, population, employment and vehicle ownership (Table 1, Socioeconomic Data Summary). These socioeconomic variables were then disaggregated to traffic zones (small geographic areas, see Appendix 6) to illustrate where growth is expected. These forecasts, and the network deficiencies identified in the 2025 Plan, were then reviewed by the Area Plan Commission's Citizen, Technical, Transportation Study, and Administrative Committees. These committees examined the list of projects from the 2025 Plan, reviewed their need based on congestion, capacity and safety, and then supplemented it to meet the needs to the year 2030. Thus, the projects contained in the *Transportation Plan for 2030* were based on historic trends, current circumstances, forecasts of dwelling units and employment growth areas, and known capacity and safety deficiencies.

Table 1. Socioeconomic Data Summary

	<u> 1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	2030 est.
Total Population	109,378	121,702	130,598	148,955	216,832
Total # of Dwelling Units	34,197	43,130	48,134	58,343	95,616
Number of Households	32,320	40,681	45,618	55,266	89,647
Persons per Household	3.00	2.59	2.50	2.42	2.25
Total Employment	52,015	64,915	80,290	99,143	120,000
Vehicles	49,053	68,460	83,690	106,504	179,274
Vehicles per Household	1.52	1.68	1.83	1.93	2.0

Source: U.S. Department of Commerce: Bureau of the Census, Census of Population and Housing, and Bureau of Economic Analysis, Regional Economic Information Systems; Division of Housing and Food Services, Purdue University, APC Land Use Survey; and APC Staff Analysis,

Employment

The US Department of Commerce, Bureau of Economic Analysis (BEA) employment data was adopted for the base year of 2003. BEA data was used because it was comprehensive and included part time, sole proprietors, as well as full time workers. The BEA reported that there were 94,994 jobs in Tippecanoe County in 2003 with the retail sector accounting for 18.7% of all workers. Historical data indicates the percent of persons employed in retail versus non-retail have remained relatively constant and we anticipate that relationship will continue.

After conferring with local economic development organizations, evaluating past employment trends and previous forecasts, we estimate employment will grow to 120,000 jobs by 2030. This was based, on two trends. Initially, growth in employment will occur at a slow pace – still recovering from the recession in early 2000 and the impact of 9-11. We anticipate that by 2009, the County will again reach its previous peak employment of 99,000 jobs. After 2009, employment is anticipated to grow steadily and increase about 1,000 jobs each year.

Dwelling Units

In 2003, there were 63,816 dwelling units in the County as reported by the Area Plan Commission's 2003 land use survey of Tippecanoe County. This is corroborated by the 2000 US Bureau of the Census decennial census data that was supplemented with local building permit data. The 2000 Census counted 58,343 dwelling units in Tippecanoe County on April 1, 2000. By taking into account dwelling units added and lost, through demolition or conversion, the land use survey and the supplemented Census data differ by less than one-percent.

Vacancy rates in this community have varied widely over time, typically with single family rates lower than rental units. The 2000 Census of Housing estimated that the occupancy rate was 94.7% for all types of housing units in Tippecanoe County. In 2003 the vacancy rates were on the high end of the cycle with both rental and owner occupied units perhaps twice their normal rate. This trend is expected to improve over the next few years and then settle into more typical rates. This Plan assumes a total of 60,465 dwelling units were occupied in 2003.

The number of dwelling units grew by 9,000 in the 1970's, 5,000 in the 1980's and by 10,000 in the 1990's. Even while employment dropped since 2000 the number of dwelling units has continued to increase, thus the Plan assumes a strong housing demand in the future with approximately 1,000 new units per year for the next decade and then increasing to 1,300 units per year, for a total of 95,616 dwelling units by 2030

Population

After reviewing various population estimates, this Plan adopted the Census Bureau's 2003 estimate of 154,848 persons in Tippecanoe County. National and local demographic trends were assessed to determine that the average household size will continue to decrease, but at a decreasing rate to 2.3% by 2015, and 2.25 by 2030. The other variable affecting population in this community is the number of people in group quarters (e.g., dormitories, hospitals, jails, etc.), and the Plan assumes that will stay at approximately the same number as in the year 2000.

Thus, based on the increased number of dwelling units and the average household size assumptions, as shown in Table 1, Socioeconomic Data Summary, the Plan forecasts a County population of 216,800 by the year 2030.

Vehicles

The Census Bureau documents the increase in auto ownership and the average number of vehicles per household over time (Table 1, Socioeconomic Data Summary). This trend mimics state and national trends and is expected to continue. This Plan assumes that by the year 2030 households will own an average of two vehicles.

FORECASTS DISTRIBUTED TO TRAFFIC ZONES

To reflect development changes in the community the number of traffic zones were increased from 199 zones used in the 2025 Plan to 281 zones in the this Plan. Zones were divided to more accurately reflect land uses and traffic generation. The majority of new zones are within the urban area, with new zones in the built urban core, the developing fringes, as well as rural areas that has experienced residential growth. Many of the new zones reflect special uses such as schools and commercial developments.

To visualize future employment and housing concentrations, information from a variety of primary and secondary sources were used to map growth by traffic zone. To determine employment and dwelling unit patterns in the future, the Land Use Element of the *Comprehensive Plan for Tippecanoe County* was used as a guide in previous transportation plans and was also used in the preparation of the *Transportation Plan for 2030*.

The Land Use Element forecasts locations for residential, commercial and industrial expansion, as well as those locations best suited to open space and agricultural uses. It was developed within the context of the previously noted goals and objectives that form the basis for our comprehensive planning efforts.

Employment forecasts were distributed among the traffic zones based on the 2025 Plan, existing zoning maps, consultation with the Economic Development Corporation, current events, and the land identified for industrial and commercial uses in the Land Use Element of the Comprehensive Plan for Tippecanoe County (Figure 1, 2030 Forecast of Employment Growth).

It is anticipated that future housing will be built within the "Residential Expansion Sectors" identified in the adopted Land Use Plan and Housing Element of the *Comprehensive Plan for Tippecanoe County* (as amended). The Plan promotes a compact development pattern, with sufficient land programmed to house half again as many persons as now live in Tippecanoe County. Yet, areas of prime farmland have been identified and earmarked for continued agricultural usage. Residential expansion areas include:

- From the southern urban boundary down to Wea Creek in Wea Township (with some overlap into Fairfield Township);
- From the eastern urban boundary to Wildcat Creek, beyond the intersection of I-65 and SR 26 East in Fairfield Township and western Perry Township;
- From the northern and western urban boundary into Wabash Township;
- Around the small towns of Battle Ground, Clarks Hill, and Dayton; and
- Within the Cities of Lafayette and West Lafayette and the small towns through infilling and intensification.

Two additional source of information were used to allocate future dwelling units to traffic zones: data on existing building permit activity (Figures 2, Residential Building Permits, 2001-2005), and a list of active and proposed subdivisions and planned developments. The list included developments ranging from those completed, to nearly complete, to those just having preliminary approval. The forecasted residential growth areas used in the Plan (Figure 3, 2030 Forecast of Dwelling Units Growth) follow closely the "Residential Expansion Sectors" identified in the Comprehensive Plan.

The full zonal distribution of population, dwelling units, vehicles and employment is in Appendix 7, Detailed Socioeconomic Data.



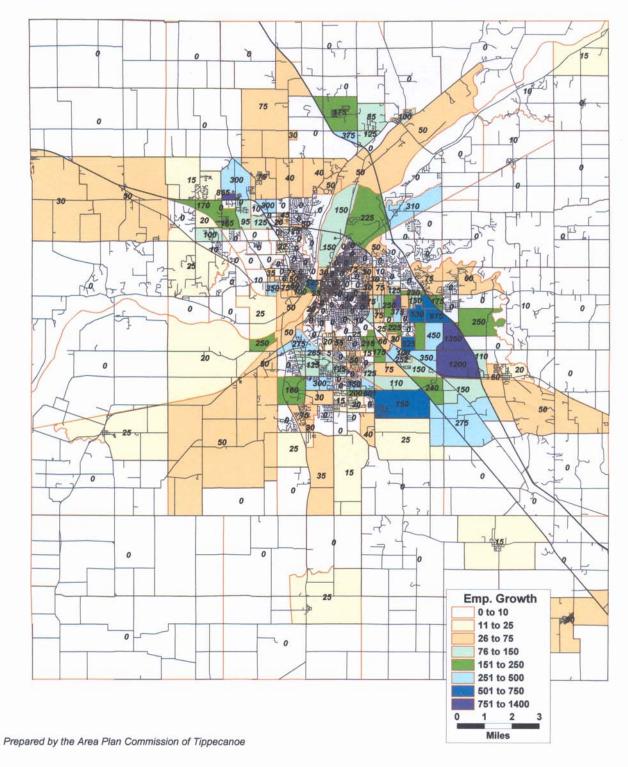


Figure 2
Residential Building Permits, 2001 - 2005

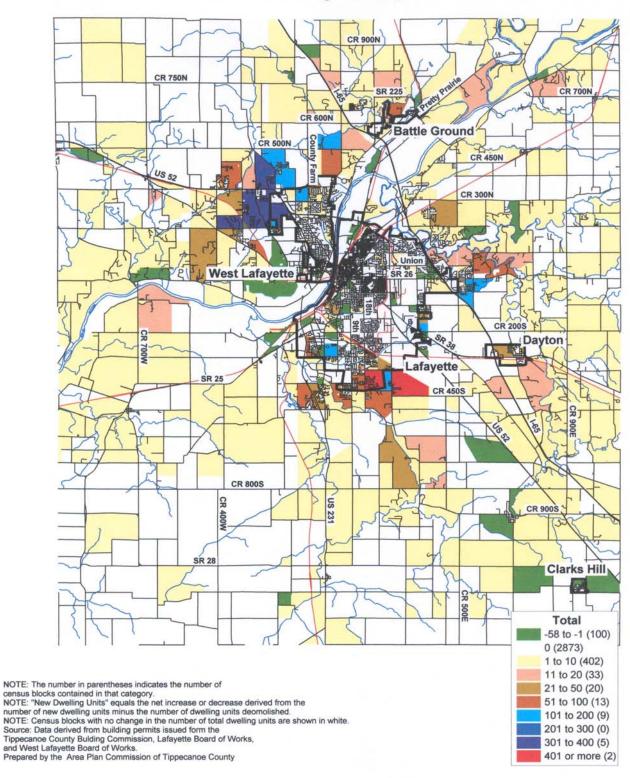
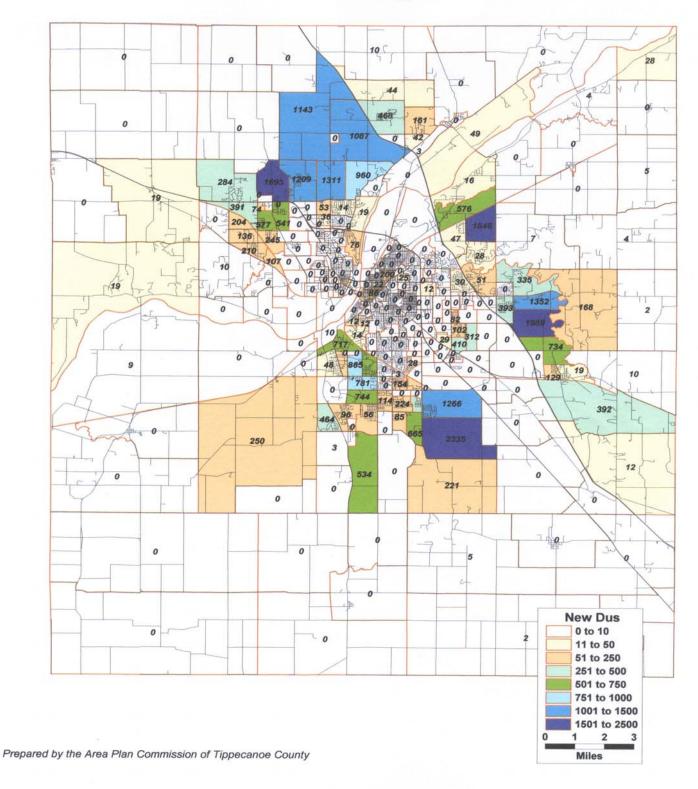


Figure 3
2030 Forecast of Dwelling Unit Growth



Chapter 3

THE PLAN AND IMPLEMENTATION

THE PLAN

Projects proposed in the *Transportation Plan for 2030*, are based on projects identified but not yet constructed from the technically more rigorous *Transportation Plan for 2025* and extensive community input. This Plan forecasts a possible future that will be revisited to meet the changing conditions and needs. It is but one component among many that serves as a way to achieve overall community-wide goals. Through this plan, we can only provide an overview, and context for addressing change. Responsible agencies will need to be alert to the realities of urban development, and modify these strategies as needed.

The *Transportation Plan for 2030* (Figure 4, Transportation Plan for 2030, and Table 3, Project List for the Transportation Plan for 2030) documents what the community's road network will be if all the proposed improvements are completed by 2030. It continues the planning emphasis from previous Plans by creating additional alternatives streets, and circumferential routes to divert traffic off existing congested streets. It recommends improving circulation through expanding and upgrading the road network, and contains a detailed list of individual projects as well as documents the emerging issues, recent progress, and future concerns.

The Plan is a joint effort by the staff of APC, Tippecanoe County, Lafayette, and West Lafayette, with input from Purdue University, CityBus, and the Indiana Department of Transportation. The Plan has been reviewed and approval by the Area Plan Commission and its: Citizen Participation, Transportation Study, Technical, and Administrative Committees. INDOT maintains a separate list of needed improvements for the State highways, and this Plan supports those state projects. However, the community has identified additional needs not yet foreseen by the State; those projects have been included in this Plan for illustrative purposes. The list of those state projects is contained in a letter from INDOT and included in Appendix 1, INDOT Comments with an accompanying map.

Because of the cost and chronically scarce funding, the Plan's proposed network improvements will be implemented over time when the financial resources become available. They can not be constructed in a short period of time, because each improvement must first be fully designed, right-of-way acquired by negotiating with property owners, construction funding secured, and then construction can take years depending on a project's complexity.

COSTS

Obtaining the financial resources to implement the projects in the Plan will be the greatest challenge facing the community's transportation needs. As listed in Table 3, Project List for the Transportation Plan for 2030 Project List, the total estimated cost of all highway projects in the Transportation Plan for 2030 is almost two billion dollars (\$1,913,433,000). Proposed State Highway projects make up 66% of the total. Improvements to our local street and highway network account for 27%. The remaining 7% would result from private development. Three projects (the relocation of US 231, Hoosier Heartland Corridor, and widening I-65) account for forty two percent (42%) of all proposed project costs.

One of the primary funding sources for improvements to the transportation system is from the US Department of Transportation. With the uncertainties in Federal funding beyond SAFETEA-LU, we can only estimate the nature and amount of Federal funding that will be available over

Figure 4. Transportation Plan for 2030

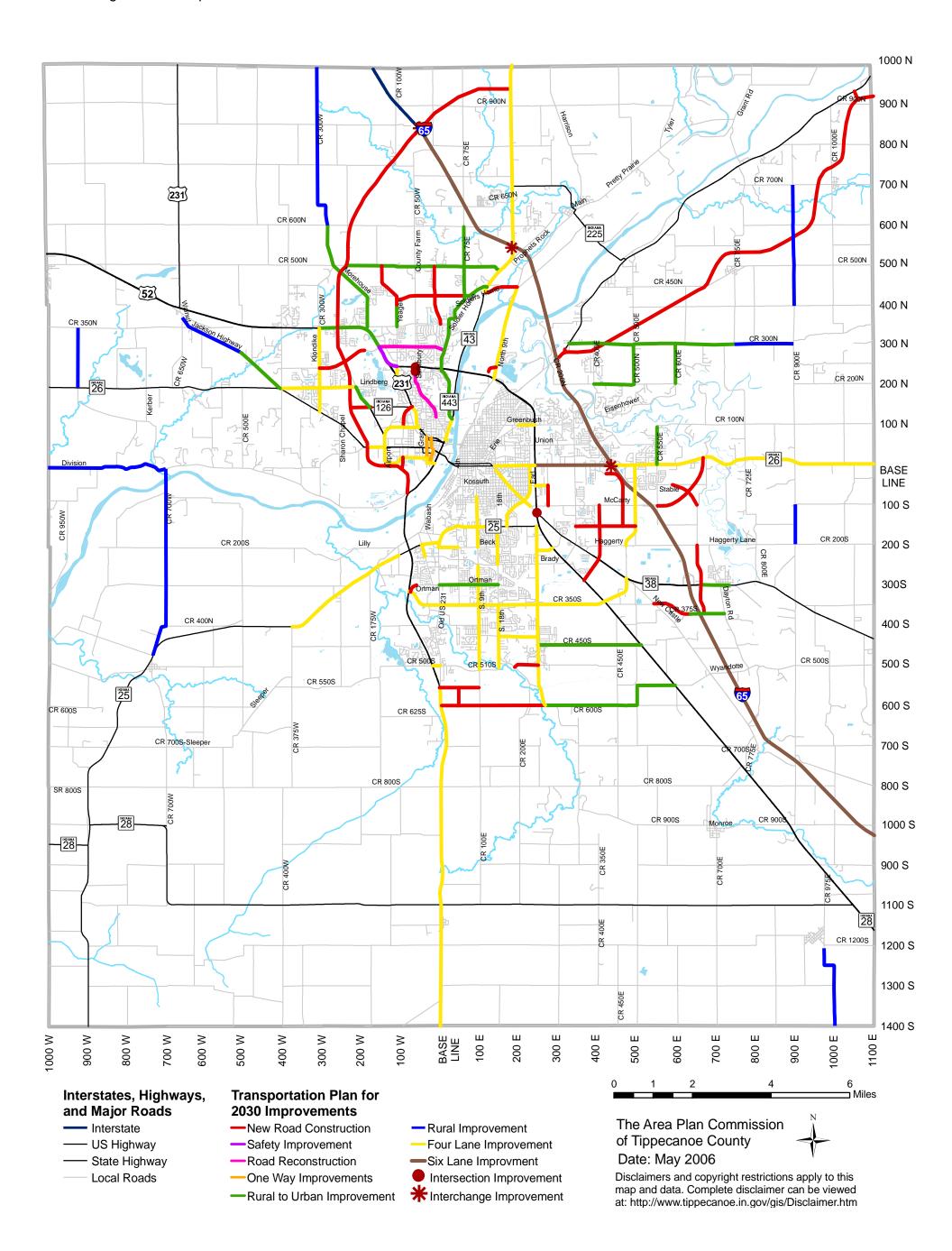


Table 3. Project List for Transportation Plan for 2030

Project	Location	Total Cost	Project	Location	Total Cost
Lafayette		<u> </u>	Tippecanoe Co	ounty	
Beck Lane	Old US 231 to Poland Hill	4,284,000	Cherry Ln	US 231 to McCormick Rd.	3,287,000
Concord	Maple Pt./US-52 to Brady	4,800,000	Concord Rd	CR 350S to CR 430S	3,600,000
Concord	Brady to CR 350S	3,320,000	Concord Rd	CR 430S to CR 600S	8,656,000
Concord	Teal to Maple Point	3,350,000	CR 200N	CR 400E to CR 500E	4,188,000
Duncan Rd	N of US 52 to N 9th St Rd	3,511,000	CR 300N	SR 25 to CR 750E	6,735,000
Earl Avenue	South Street to Teal Road	8,608,000	CR 300N	CR 750E to CR 900E	7,362,000
Greenbush	Elmwood to US 52	5,202,000	CR 350/400S	New Castle to Dayton Rd	10,895,000
Kossuth	US 52 to Farabee Drive	5,675,000	CR 430S	18th St. to Concord Rd.	4,071,000
Main Street	18th To McCarty Lane	7,286,000	CR 450S	Concord Rd. to US 52	10,789,000
Old Romney Rd	SR 25 to Twyckenham	1,731,000	CR 500E	SR 26 to Haggerty	14,509,000
Old US 231	SR 25 to Beck Lane	1,538,000	CR 500E	CR 200N to CR 300N	4,835,000
Ortman	Old US 231 to 18th Street	5,149,000	CR 500N	CR 225W to CR 75E	7,265,000
South 18th	CR 350S to CR 430S	3,606,000	CR 500S	New US 231 to Old US 231	1,632,000
South 18th	Teal to Brady Lane	7,244,000	CR 550E	SR 26 to CR 100N	3,244,000
South 9th	Twyckenham to CR 350S	5,024,000	CR 600E	CR 200N to CR 300N	4,875,000
South 9th	CR 350S to CR 430S	4,344,000	CR 600S	Wea Sch. Rd to CR 450E	7,556,000
South 9th	Teal to Beck Lane	2,482,000	CR 600S, 500E &	CR 450E to US 52	8,042,000
South 9th	Owen to Teal	3,120,000	CR 550S		
South Street	Main Street to Earl Avenue	12,775,000	CR 700W	SR 25 to Division Rd	27,674,000
SR 25	Old Romney to Old US	5,145,000	CR 75E	CR 600N to Soldiers Home	7,053,000
	231		CR 900E	CR 100S to CR 200S	4,835,000
SR 25	Old US 231 to Teal	7,705,000	CR 900E	CR 400N to CR 700N	14,725,000
Teal	S. 4th to 9th Street	4,525,000	CR 925W	CR 350N to SR 26	8,697,000
Teal	9th Street to 18th Street	4,347,000	CR 975E	Railroad to CR 1300S	10,626,000
TOTAL		114,771,000	Cumberland Ext.	Cumberland ex Klondike.	5,207,000
			Jackson Hwy	UAB to SR 26	8,312,000
			Jackson Hwy	CR 650W to UAB	7,323,000
West Lafayette			Klondike	US 52 to Lindberg	8,619,000
Cumberland	US 52 to Yeager	1,475,000	Klondike	Lindberg to SR 26	4,569,000
Cumberland	Yeager to Salisbury	1,598,000	Lindberg	Klondike to McCormick	3,000,000
Cumberland	Salisbury to Soldiers	1,620,000	Lindberg	SR 26 to Klondike	8,238,000
	Home		McCarty Lane	CR 550E to SR 26	6,900,000
Happy Hollow	US 52 to N. River Road	4,084,000	McCormick	Lindberg to Cherry	1,900,000
N. River Road &	Dehart to Happy Hollow &	2,700,000	Morehouse rd.	CR 600N to US 52	12,347,000
Harrison Bridge	Interchange at SR 43		Morehouse Rd.	County Line to CR 600N	23,964,000
Salisbury	Meridian to Riley	1,000,000	North 9th St.	Swisher to Duncan Rd.	19,341,000
Salisbury	Riley to Rainbow	700,000	North Yeager	Curve Correction/ 500N	2,300,000
Salisbury	Rainbow to Navajo	954,000	S. 18th	CR 430S to CR 510S	4,570,000
Salisbury	At US 52	1,475,000	S. 9th	CR 430S to CR 510S	4,923,000
Soldiers Home	US 52 to Kalberer	5,000,000	S.River Road	County Line to CR 700W	17,890,000
Soldiers Home	Kalberer to City Limits	4,450,000	Soldiers Home	City Limits To N. River Rd	2,212,000
Yeager	US 52 to Northwestern	1,900,000	SR 26	US 231 to Airport Road	2,831,000
Yeager	Kalberer to City Limits	1,580,000	TOTAL		329,597,000
TOTAL		28,536,000			

Table 3. Project List for Transportation Plan for 2030 (continued)

Project	Location	Total Cost
Purdue Area II	mprovements	
Williams/Harrison	S. Intramural to US 231	6,900,000
Grant/Chauncey	Fowler to Williams	1,021,000
Stadium	Intramural to Northwestern	4,307,000
Harrison/Airport	State to S. Intramural	11,046,000
McCormick	State to N. Intramural	11,962,000
N. Intramural	Northwestern to Stadium	9,041,000
Northwestern	Intramural to Stadium	8,604,000
TOTAL		52,881,000

Indiana Department of Transportation	Indiana	Department	of Trans	portation
--------------------------------------	---------	------------	----------	-----------

SR 25	Hoosier Heartland	108,228,000
SR 25 (350S)	New US 231 to Poland Hill	9,834,000
SR 25 (350S)	Poland Hill to Concord Rd.	10,824,000
SR 25 (350S)	Concord Rd. to US 52	9,959,000
SR 25 (350S)	US 52 to SR 38	6,467,000
SR 25	CR 375W to CR 100W	31,810,000
SR 26	I-65 to CR 550E	9,714,000
SR 26	CR 550E to CR 900E	25,284,000
SR 26	CR 900E to County Line	16,416,000
SR 26	At US 52	6,404,000
SR 26	US 52 to I-65	60,472,000
SR 26	At I-65	7,994,000
SR 26	31st St. to west of US 52	3,148,000
SR 38	Through Dayton	3,220,000
SR 38	At US 52	1,836,000
SR 43	I-65 to CR 725N	14,621,000
SR 43	CR 725N to County Line	21,550,000
SR 43	At I-65	4,282,000
SR 43	State Park Road to I-65	13,683,000
SR 43B	I-65 to SR 43	31,432,000
US 52	Klondike to Cumberland	14,324,000
US 52	Cumberland to Yeager	2,398,000
US 231	S. River Road to SR 26	35,593,000
US 231	SR 26 to US 52	21,907,000
US 231	US 52 to I-65	106,387,000
US 231	CR 500S to County Line	136,027,000
I-65	SR 38 to County Line	151,362,000
I-65	SR 43 to SR 38	327,432,000
I-65	US 231 to SR 43	52,843,000
Prophetstown Pk	SR 43 to North 9th	8,188,000
TOTAL		1,253,639,000

Project	Location	Total Cost
Town of Dayton	<u> </u>	
Yost Drive	Haggerty to SR 38	6,926,000
Private Develop	oment	
Park East Drive		2 560 000
Park East Drive	McCarty to E-W Collector E-W Collector to Haggerty	3,569,000
Park East Drive	• • •	3,357,000
	Haggerty to SR 38 SR 38 to US 52	2,257,000
Park East Drive E-W Collector	Creasy Lane to Park East	5,294,000 Unde
E-W Collector	Park East to Commerce Dr.	Construction 4,725,000
E-W Collector	Ext. Commerce Dr. Ext. to CR 500E	3,184,000
Commerce Dr. Ext.	Commerce Dr. to McCarty	8,879,00
Commerce Dr. Ext.	Lane McCarty Lane to E-W. Collector	5,034,000
Stable Drive	CR 550E to McCarty Lane	6,701,00
Stable Drive	McCarty Lane to CR 650E	3,250,000
Farabee Drive	Kossuth to McCarty	4,835,00
CR 500S	Wea School Rd. to Concord	5,042,00
CR 550S	US 231 to CR 50E	9,670,000
CR 600S	US 231 to CR 250E	25,529,00
Wea N/S Coll.	CR 550S to CR 600S	7,350,000
WL N/S Collector	CR 500N to Kalberer	10,072,000
WL E/W Collector	CR 100W to Soldiers Home	8,506,000
Yost Drive	SR 38 to CR 400S	7,064,000
CR 300S	Existing to CR 350S	2,765,000
TOTAL		127,083,00
	GRAND TOTALS	
Lafayette	SIMILO TOTALO	114,771,00
West Lafayette		28,536,00
Tippecanoe Co.		329,597,00
Purdue		52,881,00
Dayton		6,926,00
INDOT		1,253,639,00
Private		
		127,083,000
GRAND TOTAL		1,913,433,000

Table 4, Federal Aid Project List for Transportation Plan for 2030

		Cost in		Year of
Project	Location	Year of CN	Priority	Const.
Lafayette				
Concord/Maple Pt.	Teal/US 52 to Brady	4,800,000	High	2009
Concord	Brady to CR 350S	3,320,000	High	2008
South 18 th	CR 350S to CR 430S	3,606,000	High	2010
Old Romney Rd	SR 25 to Twyckenham	1,731,000	High	2011
SR 25	Old Romney to Old US 231	5,145,000	High	2015
Old US 231	SR 25 to Beck Lane	1,538,000	High	2016
South 9 th	CR 350S to CR 430S	4,344,000	Med	2012
SR 25	Old US 231 to Teal	7,705,000	Med	2016
Greenbush	Elmwood to US 52	5,202,000	Med	2018
Main Street	18th To McCarty Lane	7,286,000	Med	2019
	Total	44,677,000		
West Lafayette				
Soldiers Home	US 52 to Kalberer	5,000,000	High	2010
Yeager	US 52 to Northwestern	1,900,000	High	2009
Happy Hollow	US 52 to N. River Road	4,084,000	Med	2010
Salisbury	At US 52	1,150,000	Med	2011
Cumberland	Salisbury to Soldiers Home	1,620,000	Low	2011
Soldiers Home	Kalberer to City Limits	4,450,000	Low	2011
N. River Road and	Quincey to Catherwood	2,700,000	Low	2011
Harrison Br. ramp	and modify ramp			
·	Total	20,904,000		
Tippecanoe County				
Cumberland Ext.	Cumberland ext. to Klondike	5,207,000	High	2010
McCarty Lane	CR 550E to SR 26	6,900,000	High	2009
Klondike	US 52 to Lindberg	8,619,000	High	2012
Klondike	Lindberg to SR 26	4,569,000	High	2020
SR 26	US 231 to Airport Road	2,831,000	Med	2015
Concord Road	CR 350S to CR 430S	3,600,000	Med	2009
	Total	31,726,000		
Purdue Area				
Stadium	Intramural to Northwestern	4,307,000	High	2014
Harrison/Airport	State to S. Intramural	11,046,000	High	2018
McCormick .	State to N. Intramural	11,962,000	High	2020
N. Intramural	Northwestern to Stadium	9,041,000	High	2023
Northwestern	Intramural to Stadium	8,604,000	High	2025
	Total	44,960,000	J	
Federal Funds Availal	ble to 2030 [80%]	105,156,400		
Local Match required		37,110,600		
Total Cost of All Proje		142,267,000		
_	d for all Projects [80%]	113,813,600		
Balance [80%] (8.2% d		8,657,200		

the next 23 years. This Plan is fiscally constrained because it anticipates requesting Federal STP funds within a range of what this community might reasonably expect to receive (assuming a 2% growth in Federal funding each year starting with the average of the last three years and an allowable overprograming of up to 10%) through 2030 (see Appendix 8 for calculation methodologies).

MEETING COMMUNITY GOALS AND OBJECTIVES

This update to the transportation element of the adopted *Comprehensive Plan for Tippecanoe County* identifies transportation needs based on historic trends, current circumstance including congestion and safety issues and projected population and employment growth, set within the context of the Land Use Element of the *Comprehensive Plan for Tippecanoe County*.

This Plan serves as an overview, or system-wide description of major capital improvements. There are and will be other localized concerns about traffic circulation and operations that are not of a scope or breadth to be included here. This broad overview helps member governments examine their own objectives within the context of area wide needs.

This *Transportation Plan for 2030* continues to meet community-wide social and economic goals and objectives. Unimagined changes will occur, and will require us to modify strategies and solutions to problems. The community needs to remain alert to the realities of urban development which may require modifying previously developed strategies. As such, a plan is not an end in itself but rather a means of satisfying and attaining our current goals and objectives. Additionally, this plan meets requirements mandated by the SAFETEA-LU, the federal legislation which directs transportation funding.

MANAGEMENT SYSTEMS, TIP AND THE THOROUGHFARE PLAN

In addition to the *Transportation Plan for 2030*, there are infrastructure management system tools we use in the transportation planning process. Two of these are the *Transportation Improvement Program* (TIP) and the *Thoroughfare Plan*, both of which also relate to long range planning.

Whereas a transportation plan takes a long-range, system-wide approach, management systems are meant as short-range plans for maximizing system efficiency and are an adjunct to the transportation plan. Projects evolving from infrastructure management systems complement long range plans with smaller, short-range projects that emphasize a more limited scope and are typically designed to make the system more efficient.

Lafayette, West Lafayette and Tippecanoe County have roadway management systems that seek to preserve existing transportation facilities through maintenance and repair programs as well as to utilize existing transportation facilities more efficiently (e.g., signal coordination, pavement marking, and intersection improvements). Additionally Tippecanoe County has a bridge inventory and management system, and part of West Lafayette's roadway system addresses its Americans with Disabilities Act needs. All use their systems to document and establish priorities.

CityBus has adopted several strong system management practices that promote safety, mobility, and more efficiently use their existing transportation infrastructure. Ridership increases are evidence that their aggressive programs of fleet maintenance and acquisition, marketing, schedule adherence, and strategic planning contribute to a system that successfully provides an alternative to the automobile.

The next step, after adoption of this *Transportation Plan for 2030*, will be to continue to focus on each of the management systems. The TIP is a capital budgeting tool that sets an on-going

multi-year timetable for funding transportation improvements. These projects come from both the transportation plan and other management systems. The TIP includes all projects whether or not they are funded by the US Department of Transportation.

The TIP is prepared for adoption each year, corresponding with the upcoming fiscal year. It specifies a timetable, funding sources and the agency responsible for completing each project listed. These projects may originate from any one of the six implementing agencies: the Cities of Lafayette and West Lafayette, Tippecanoe County, INDOT, CityBus and the Purdue Airport. Each year, there is an allotted amount of Federal funding that this community receives that can be used for approved projects.

The *Thoroughfare Plan* is another element of the adopted *Comprehensive Plan for Tippecanoe County*. It combines the classification of roads - freeways, arterials and collectors - with specific design standards for each classification. As such, it links the transportation plan to the *Unified Subdivision Ordinance of Tippecanoe County*.

In the *Thoroughfare Plan* roads are classified as either urban or rural, as defined by the US Census Bureau's Urbanized Area Boundary. Urban and rural roads are then further classified as being residential, nonresidential or arterial. There are three type of residential roads (place, local road, collector), two type of nonresidential roads (local road, collector), and three type of arterials (secondary, primary and divided primary). For each type, standards are established regarding: minimum right-of-way width, minimum pavement, sidewalks, curb and gutter, side ditch and shoulder widths, maximum grade, and characteristics dealing with the geometry of curves and cul-de-sacs.

The Thoroughfare Plan ensures that local governments and private developers will not only build new roads and widen existing ones to accepted standards, but will also help implement the transportation plan in the process.

Our most recent Thoroughfare Plan was adopted in 1981 and amended seven times since. An update to the Thoroughfare Plan will be completed in 2006, as will revisions to the community's Functional Class and the Urbanized Area Boundary.

Appendix 1

INDOT Comments



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204-2216
(317) 232-5533 FAX: (317) 232-0238
An Equal Opportunity Employer ● http://www.in.gov/dot

MITCHELL E. DANIELS, JR., Governor THOMAS O. SHARP, Commissioner

Writer's Direct Line

March 14, 2006

Ms. Sallie Dell Fahey, Executive Director Tippecanoe Area Plan Commission 20 North Third Street Lafayette, IN 47901

Dear Ms. Fahey:

Thank you for taking the time to meet with representatives from the Long-Range Transportation Planning Section on February 23, 2006 to discuss the status of projects on the State jurisdictional highway system that will be included in the Lafayette Long-Range Plan Update. This letter shall serve as a response to your follow-up project listing that was provided by Doug Poad from your staff on February 27, 2006. The following projects are consistent with the 2004 INDOT Long-Range Plan update and are projects where both the Lafayette MPO and INDOT are in agreement. They may be included in your Long-Range Plan update as "fiscally constrained" State jurisdictional projects.

SR 25 Hoosier Heartland:

This project is listed in the INDOT Long-Range Plan as Project #466, an 11.8 mile new road construction project from the I-65/SR 25 interchange to the Tippecanoe County line. Since the publication of the Draft INDOT Long-Range Plan update, the Tippecanoe County segment of the project has been broken out and programmed in three smaller segments; it has also been included in the draft Major Moves Program under the identification number 98. The new SR 25 Hoosier Heartland segments as programmed into SPMS are as follows:

DES #9802920 from I-65 to CR 450N (4.5 mi) (Segment 1 – Phase A) \$22,220,000 DES #0500597 from CR 450N to 0.23 mi E of CR 700N (Segment 1 – Phase B) \$21,490,000 DES #0500598 from 0.23 mi E of CR 700N to 0.42 mi E of Tippecanoe/Carroll

County line (Segment 1 – Phase C) \$24,160,000

Total estimated costs for Tippecanoe County Segment of SR 25: \$67,870,000

SR 26 ATL from I-65 to CR 550E:

This project is listed in the INDOT Long-Range Plan as an added travel lanes Project #89, DES #9134885, Major Moves #105

SR 26 ATL from US 52 to I-65:

This project is listed in the INDOT Long-Range Plan as an added travel lanes Project #141, DES #0500710

• I-65/SR Interchange Modification:

This interchange modification project is listed in the INDOT Long-Range Plan as Project #94, DES #9802780

SR 38 Reconstruction through Dayton:

This project does not rise to a sufficient level of added capacity to be included in the INDOT Long-Range Plan. However, it is a real INDOT reconstruction project that is included in the *Draft Major Pavement Program (2006 – 2015) By County* that will remain as a two-lane roadway. The project is DES #9802490 from 0.45 mi E of I-65 to 1.35 mi E of I-65 through Dayton.

SR 43 ATL from I-65 to CR 725N:

This project is listed in the INDOT Long-Range Plan as two projects: Project #106, DES #8572190, added travel lanes from 0.26 mi N of I-65 to 1.16 mi N of I-65 Project #093, DES #9700240, added travel lanes from 1.16 mi N of I-65 to 1.93 mi N of I-65 Note: both projects are included in Major Moves #142.

I-65/SR 43 Interchange modification:

This project is listed in the INDOT Long-Range Plan as Project #95, DES #9802790 interchange modification.

It is also included in the Draft Major Pavement Program (2006 – 2015) By County.

US 231 S. River Road to SR 26 new road construction:

This project is included in the INDOT Long-Range Plan as Project #100, DES #9700830, new road construction, Major Moves #216.

US 231 from SR 26 to US 52 new road construction:

This project is included in the INDOT Long-Range Plan as Project #465, DES #0300431, new road construction, Major Moves #216.

• US 231 from US 52 to I-65 new road construction:

This project is included in the INDOT Long-Range Plan as Project #479, DES #0500168, new road construction.

- <u>US 231 from CR500S to Tippecanoe/Montgomery County line ATL or new road construction:</u>
 This project is included in the INDOT Long-Range Plan as Project #235, DES #0500168, new road construction.
- I-65 from SR 43 to SR 38 added travel lanes:

This project is listed in the INDOT Long-Range Plan as Project #477. The project has since been programmed as three projects. The next INDOT plan update will most likely reflect this programming:

DES #300896 from SR 26 to SR 25 ATL, 2016 RFC date, estimated cost is \$24 million DES #0500423 from SR 25 to SR 43 ATL, 2018 RFC date, estimated cost is \$17 million DES #0500422 from SR 38 to SR 26 ATL, 2020 RFC date, estimated cost is \$21 million

I-65 from SR 38 to County line – added travel lanes:

This project is listed in the INDOT Long-Range Plan as Project #611, added travel lanes from US 52 to SR 38. It has since been broken out and programmed as follows:

DES #0500488, added travel lanes on I-65 from SR 28 to SR 38, 11.03 miles in length, 2.5 miles in Clinton County and 8.53 miles in Tippecanoe County, 2026 RFC date, \$61 million estimated cost.

The project listing that follows encompasses those projects that are not in agreement with the INDOT Long-Range Plan and are not under study. INDOT has therefore not made a financial commitment to the advancement of these projects. They may be shown in the MPO's plan update in the illustrative list as unfunded needs.

- SR 25 (350S) from New US 231 to Poland Hill, 4-lane widening:
 This is not in INDOT's Plan.
- SR 25 (350S) from Poland Hill to Concord Road, 4-lane widening This is not in INDOT's Plan.
- SR 25 (350S) from Concord Road to US 52, 4-lane widening
 This is not in INDOT's Plan
- SR 25 from CR 375W to 100W, 4-lane widening This is not in INDOT's Plan.
- SR 26 from CR550E to CR 900E, 4 lane widening:

 INDOT has no plans to add lanes to this segment of SR 26. There is however an INDOT reconstruction project (DES #0012950) that covers this segment SR 26. INDOT will not be listing reconstruction projects in its next plan update. MPOs may choose whether or not to include reconstruction projects in its Long-Range Plans. However in this case, should the MPO choose to list this project as an added travel lanes project, it must be listed in the illustrative list as an unfunded need.
- SR 26 from CR900E to the Tippecanoe/Clinton County line, 4-lane widening:

 INDOT also has no plans to add lanes to this segment of SR 26. There is however an INDOT reconstruction project (DES #0500298) programmed for this segment of SR 26 with an RFC date of 2019. Like the previous project, the MPO may choose whether or not to list reconstruction projects in its Long-Range Plan. However as with the previous case, should the MPO choose to list this project as an added travel lanes project, it must be listed in the illustrative list as an unfunded need
- SR 43 from CR 725N to the Tippecanoe/White County line, 4-lane widening:
 INDOT has no plans to add lanes to this segment of SR 43. There is however an INDOT reconstruction project (DES #0012940) from SR 225 in Tippecanoe County to SR 18 in White County. Like the previous two projects, the MPO may choose whether or not to list reconstruction projects in its Long-Range Plan. However as with the previous cases, should the MPO choose to list this project as an added travel lanes project, it must be listed in the illustrative list as an unfunded need.
- SR 43B from I-65 to SR 43, new road construction This is not in INDOT's Plan.

- US 52 from Klondike to Cumberland This is not in INDOT's Plan.
- US 52 from Cumberland to Yeager This is not in INDOT's Plan.
- I-65 from US 231 to SR 43 This is not in INDOT's Plan.
- SR 43 State Park Road to I-65, 4-lane widening and Prophetstown from SR 43 to North 9th: These two projects appear to be related to the new State Park. We are not certain that the SR 43 project is not a duplication of the added travel lanes projects on SR 43 from 0.36 mi N of I-65 to 1.93 mi N of I-65 (DES #8572190 & DES #9700240). The Prophetstown project is a local road that will not be included in the INDOT Long-Range Plan. It is assumed that for this project to move forward, coordination and an agreement will need to take place between DNR, INDOT, The Tippecanoe County Highway Department and the Tippecanoe County Commissioners. The roadway would remain a part of the Tippecanoe County road inventory.

As you progress with your Long-Range Plan update, please show only the agreed upon state jurisdictional projects which are contained in INDOT's 2004 Transportation Plan update, if the MPO's fiscal constraint analysis will be showing the projects to be paid for and developed by INDOT. You may show the proposed state jurisdictional projects that INDOT has not agreed to as an illustrative list of transportation improvements and document the network benefits. We would prefer that the illustrative projects be shown on a separate map in the MPO's Transportation Plan document in order to eliminate any confusion over which category a proposed improvement is in. Illustrative projects have no official standing for transportation project development or air quality purposes until such time as a financial source has been identified and they have been formally amended into the plan by action of the MPO. The benefits of transportation improvements on the illustrative list will be considered by INDOT as the planning process moves forward and decisions are made on whether to accept the proposed improvements into the INDOT transportation plan.

Again, we appreciate the opportunity to work with the Tippecanoe Area Plan Commission on the development of the 2030 Transportation Plan update. If you should have any questions, please feel free to contact me at: (317) 232-5646.

Sincerely,

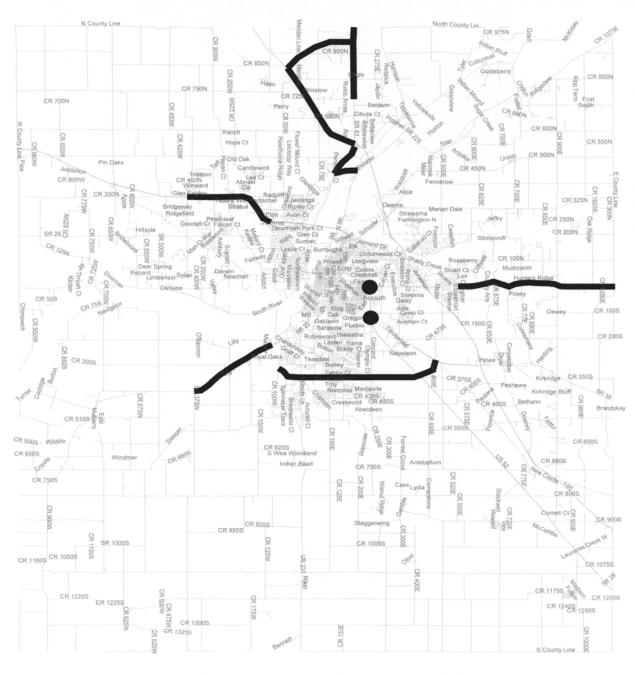
Stephen C. Smith

Manager, Long-Range Transportation Planning Section

Stephen C. Smith

Cc: John Weaver Eryn Hays Carter Keith

INDOT Illustrative Project List



Map Legend
Vision Projects

Prepared by the Area Plan Commission of Tippecanoe County

Appendix 2

Summary of Indiana's Strategic Highway Safety Plan

SAFETEA-LU requires that each state have a Strategic Highway Safety Plan (SHSP) that identifies and analyzes safety problems and opportunities in order to use federal Highway Safety Improvement Program (HSIP) funds. In 2006, Indiana DOT developed the Indiana SHSP with the cooperation of several state agencies. Indiana's SHSP represents a wide-range of methodologies to improve highway safety by drawing upon engineering, law enforcement, and public education resources to prevent or reduce the frequency and severity of traffic crashes. It is also a starting point for strengthening relationships with emergency responders and health care professionals who work to save the lives and reduce the suffering of traffic crash victims.

The mission of this Indiana SHSP is to "Make Indiana's highway system safer to drive, walk and bike though a continually improving process generating data-driven decisions identifying where infrastructure safety improvements projects are most needed, how best to educate our drivers, improve enforcement of our traffic laws, and how to ensure a swift response to save lives and ease suffering."

The plan identifies an overall goal of "reducing traffic crash fatalities to .98 per 100 Million-Vehicle Miles Traveled (HMVMT) in 2008 and .92 HMVMT by 2010." To accomplish this goal the SHSP lists 13 broader 'Emphasis Areas', which can be summarized into four areas:

- Driver Behaviors -- encompassing graduated licensing and education for young drivers, reducing impaired driving, and increasing seat belt usage.
 Objectives:
 - a. Reduce the number and severity of crashes involving teenaged drivers to 6.43 crashes per 10,000 licensed drivers by 2008.
 - To increase the observational safety belt usage rate in all passenger vehicles, including pickup trucks, sport utility vehicles, and vans to 88% by 2008.
 - c. Reduce the number of crashes involving impaired drivers from a baseline of 0.47 per HMVMT in 1996 (312 fatal crashes) to 0.23 per HMVMT in 2008.
- 2. Special Users/Vehicles -- encompassing non-motorized modes of transportation, motorcycles, and large trucks essentially the most vulnerable road users, and the largest users, which pose significant risks to others.

Objectives:

- a. Reduce the number of motorcycle fatalities to 85 by 2008 and 70 by 2010.
- b. Reduce the number of crashes involving large trucks 10% by 2008 from 2004 baseline.
- c. Reduce the number of crashes involving bicycles and pedestrians 10% by 2008 from 2004 baseline.
- 3. Serious Crash Types/Locations -- encompassing vehicle-train crashes, highway intersection design and operation, head-on crashes, and across-median crashes. Objectives:
 - a. Reduce the severity and number of crashes on rural roads 10% by 2008 from 2004 Baseline.
 - b. Reduce the severity and number of crashes of vehicles leaving the roadway 10% by 2008 from 2004 baseline.
 - c. Reduce number of crashes at intersections 10% by 2008 from 2004 baseline.
 - d. Reduce car-train collisions 10% by 2008 from 2004 baseline.

4. Crash Management -- addressing problems in crash response, clearing crashes, as well as gathering and analyzing crash data.

Objectives:

- a. Reduce response time to crash scenes.
- b. Increase safety by reducing incident-induced congestion and secondary crashes through completion of initiatives.
- c. Improve the timeliness, accuracy, and quality of the statewide crash database through reduced collection and coding errors.

Within INDOT, the Strategic Safety Project Manager is tasked with overseeing the ongoing implementation, evaluation, and required reporting on the SHSP. Using the SHPS goals and objectives, the Office of Roadway Safety and Mobility (ORSM) will identify highway infrastructure projects to be included in Indiana's HSIP. The project list will include infrastructure projects costing less than \$5-million selected from the schedule of State system projects using INDOT's safety criteria.

Appendix 3

Environmental Analysis

A Comparison of Conservation Plans, Environmental Analyses, and Inventories of Natural and Historic Resources with the Transportation Plan for 2030

INTRODUCTION

SAFETEA-LU builds upon previous initiatives to increase safety, security, encourage the protection and enhancement of cities, and protect the environment. Among the tasks that the federal law delegates to the MPOs, such as the Area Plan Commission of Tippecanoe County, are the development of a regional transportation plan and the examination of its related social and environmental impacts. This appendix provides an overview of the various potential impacts of the Transportation Plan for 2030. Figure 1 shows a Map of Tippecanoe County and the cities boundaries as of fall 2006.

It is important to note that this impact analysis is general and regional in nature. It in no way replaces the detailed Environmental Impact Statement (EIS) required by the National Environmental Policy Act (NEPA)¹ for any transportation improvement project utilizing federal funds.

BACKGROUND

Street and Highway Element

The Transportation Plan for 2030 continues the long range planning emphasis from previous Plans by creating additional alternative routes, such as circumferential streets, to divert traffic off existing congested streets. It recommends improving circulation through expanding and upgrading the road network and contains a detailed list of projects. The Plan documents recent progress, emerging transportation issues, and future concerns the community will need to address.

The Plan is a joint effort by the staff of the Area Plan Commission (APC) with input from Tippecanoe County, Lafayette, West Lafayette, Purdue University, the local transit provider (CityBus) and the Indiana Department of Transportation. The Plan has been reviewed and approved by the Area Plan Commission and its Citizen Participation, Transportation Study, Technical, and Administrative Committees. INDOT maintains a separate list of needed improvements for state highways; the Plan supports those state projects. However, the community has identified additional needs not yet included in the state's schedule; those have been included in the Plan for illustrative purposes.

Assessment Categories

As part of the Transportation Plan for 2030, information on potential social, cultural, and environmental characteristics in Tippecanoe County was documented. MPO staff reviewed the following characteristics and how they could impact, or be affected by projects in the Plan.

- Social Impacts
 - Neighborhoods, Low Income and Traditionally Underserved Groups
 - Tribal Areas
 - Historical Sites and Districts

46

¹ The National Environmental Policy Act (NEPA) [42 U.S.C. 4321 et seq.] was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and it provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ). The complete text of the law is available for review at http://ceq.eh.doe.gov/nepa/nepanet.htm.

Figure 1. **Tippecanoe County - The 2030 Long Range Planning Area** 1000 N Grant Ro CR 900N 900 N 75E 800 N S CR 700N 700 N 231 CR 600N 600 N S CR 500N CR 500N 500 N CR 450N <u>[52]</u> 400 N CR 350N **CR 300N** 300 N CR4 CR 200N 200 N **CR 500E** Greent CR 100N 100 N CR 50N CR Unio Division S. River Road BASE McCarty 100 S CR 950W CR 200S CR 200S 200 S 300S **CR 175W** CR 400N 400 S CR 500S 500 S CR 510S 52 CR 550S 600 S CR 625S CR 600S CR 375W **CR 200E** 700 S S CR 800S CR 800S 800 S SR 8005 CR 900 1000 S 28 900 S CR 1100 S 400E S 1200 S 1300 S 1400 S 300 E 1000 W 700 W W 009 400 W 100 W 100 E 300 E 400 E 900 E 700 E BASE 100 800 1.5 3 Legend 6 ■ Miles Interstates, Highways, Transportation Plan for and Major Roads 2030 Improvements One Way Improvements The Area Plan Commission Interstate New Interchange Four Lane Widening of Tippecanoe County US Highway Intersection/Interchange Improvement Four Lane Widen/New Road State Highway Date: May 2006 Safety Improvement Four Lane Improvement Local Roads Disclaimers and copyright restrictions apply to this New Road Construction Six Lane Widening

Rural Improvement

Rural to Urban Imp.

New Road/Rural to Urban

Road Reconstruction

map and data. Complete disclaimer can be viewed

at: http://www.tippecanoe.in.gov/gis/Disclaimer.htm

Environmental Impacts

- Parks and Open Spaces
- Cemeteries
- Endangered Species
- Floodplains
- Surface and Subsurface/Aquifer Water Quality
- Hazardous Waste and Superfund Sites
- Leaking Underground Storage Tanks

ANALYSIS METHODOLOGY

To better illustrate how the improvements in the Transportation Plan for 2030 impact the social and environmental quality of the area, maps were developed for each characteristic as well as the location of potential impacts.

Proximity analyses were performed, where applicable, using GIS software to evaluate the specific social, environmental, and cultural features that could impact the various network improvements. This process first involved selecting the network links (i.e., road segments and intersections) slated for improvements from the project listing in Tables 3 of the Transportation Plan for 2030. Using only these links, buffered sections of 150 feet on each side of limited access facilities, and 50 feet on each side of other street network links were used to determine which potential sites or features might be adversely impacted by the transportation improvement.

It is important to note that the GIS data used in the proximity analysis in this Appendix is of varying levels of accuracy and completeness. No attempt was made to correct or improve the spatial accuracy or completeness or the data obtained from sources outside of Tippecanoe County (e.g., Leaking Underground Storage Tanks, hazardous waste sites, and superfund sites). However, staff made efforts to ensure the accuracy and completeness for data supplied by the Tippecanoe County GIS and MPO Staff. While care was taken in the creation and maintenance of this data, the Area Plan Commission of Tippecanoe County does not accept responsibility for its accuracy.

SOCIAL IMPACTS

Neighborhoods, Low Income and Traditionally Underserved Groups

Acquisition of rights-of-way and close proximity of improvements may negatively impact low-income and minority groups. For further information, see the Environmental Justice Assessment in Appendix 5 of the Transportation Plan for 2030.

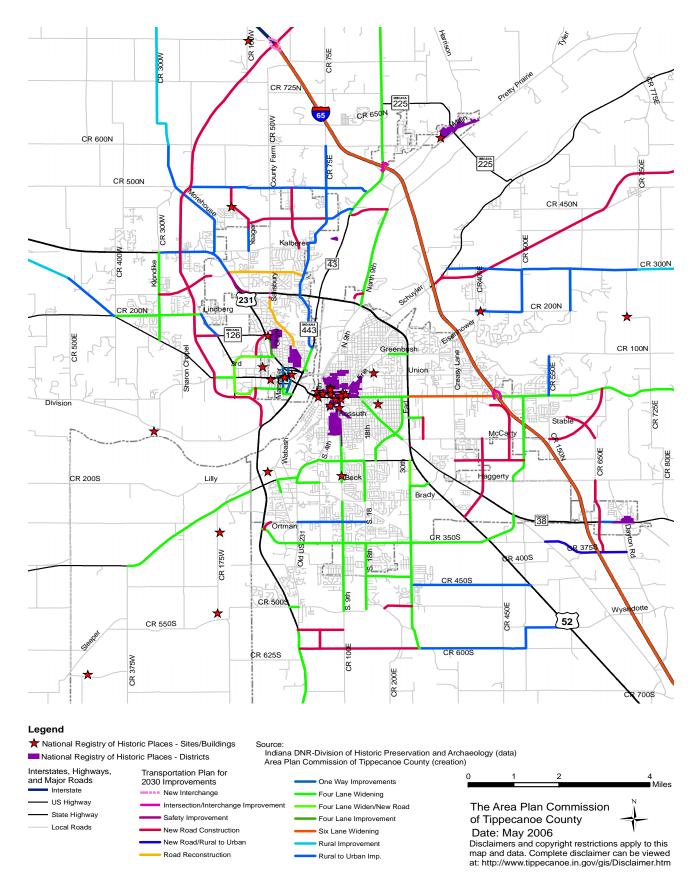
Tribal Areas

Tribal lands are those under the jurisdiction or control of a Native American Tribe, including land held in federal trust by the Bureau of Indian Affairs (BIA) for the tribe. In Tippecanoe County, there are no federally recognized tribes and no tribal or federal trust land holdings.

National Historic Sites and Districts

Information on historic sites and districts was collected from the National Park Service's National Registry of Historic Places, the Indiana Division of Historical Preservation and Archeology. As of January 2006, there were 26 sites and 14 districts listed with the National Registry of Historic Places (and four sites listed only on the State Registry). Registered historical site and district locations within Tippecanoe County are shown in Figure 2.

Figure 2. Tippecanoe County National and State Registry of Historic Places



Proximity analysis determined that no historical sites or buildings lie within the potential impact buffer for the 2030 improvements. However, the land associated with the registered site or building(s) may require additional site-specific planning, permitting and review.

Proximity analysis determined the following historical district potential impact locations:

- Hills and Dales Historic District by the four lane improvement on Northwestern from Intramural to Stadium, sponsored by Purdue Area Improvements
- Dayton Historic District by the improvement on SR 38 through Dayton, sponsored by INDOT
- Highland Park Neighborhood Historic District by the four lane widening of South 9th from Owen to Teal, sponsored by Lafayette

In general, the potential impacts on historical sites or districts from the street and highway improvements would possibly involve added time and cost in site-specific planning, permitting for the improvement.

ENVIRONMENTAL IMPACTS

Parks and Open Spaces

The inventory of existing parks, trails, and open spaces was obtained from the Tippecanoe County GIS data warehouse, and supplemented by MPO Staff. The inventory includes state parks, municipal and neighborhood parks, golf courses, sports complexes, trails, wildlife and nature areas, and public areas surrounding significant bodies of water. This inventory does not include parks and sports facilities adjacent to schools and Purdue University (with the exception of the Purdue Golf Courses and the Horticulture Park). Conservatively, there are 3000+ acres of parkland, open space golf, sports complexes, and public nature areas. Figure 3 shows the major parks, open spaces, and recreational facilities in the County.

Proximity analysis determined that the following parks and open spaces (of greater than 10 acres) are potentially impacted:

- Ackerman Hills Golf Course by the new road construction on North Intramural from Northwestern to Stadium, sponsored by Purdue Area Improvements.
- Bishop Woods by the four lane widening on S 9th St. from Teal to Beck Lane (Lafayette).
- Coyote Crossing Golf Course by the rural to urban improvement on CR 75E from CR 600N to Soldiers Home, sponsored by Tippecanoe County.
- Columbian Park by the four lane widening on Main Street from 18th to McCarty Lane, and, from the four lane widening on South Street from Main Street to Earl Avenue, sponsored by Lafayette.
- Davis Ferry Park by the four lane widening on North 9th St. from Swisher to Duncan Rd., sponsored by Tippecanoe County.
- Happy Hollow Park by the rural to urban improvement on Happy Hollow (SR 443) from US 52 to N. River Road, sponsored by West Lafayette.
- Kampen Golf Course by he four lane widening on Yeager from US 52 to Northwestern, sponsored by West Lafayette.
- Lafayette Country Club by he four lane widening on South 9th from Owen to Teal, sponsored by Lafayette.
- Mar Len Park by he four lane widening on South 18th from CR 430S to CR 510S, sponsored by Tippecanoe County.
- Mascouton Park by he four lane widening on N. River Road & Harrison from Dehart to Happy Hollow, sponsored by West Lafayette.

- Purdue Horticulture Park by the four lane widening and new road construction on Harrison/Airport from State to S. Intramural, sponsored by Purdue Area Improvements.
- Purdue Horticulture Park by the four lane widening and new road construction on McCormick from State to N. Intramural, sponsored by Purdue Area Improvements.
- Purdue Horticulture Park by the four lane widening on SR 26 from US 231 to Airport Road, sponsored by Tippecanoe County.
- Ravines Golf Course by the rural to urban improvement on S. River Road from County Line to CR 700W, sponsored by Tippecanoe County.
- Tecumseh Trails/Amphitheater Park by the four lane widening on SR 43 from State Park Road to I-65, sponsored by INDOT.
- Tecumseh Trails/Amphitheater Park by the new road construction on Prophetstown Park from SR 43 to North 9th, sponsored by INDOT.
- Tecumseh Trails/Amphitheater Park by the rural to urban improvement on Soldiers Home from City Limits to N. River Rd, sponsored by Tippecanoe County.
- Tippecanoe Battlefield Park by the Six Lane Widening on I-65 from SR 43 to SR 38, sponsored by INDOT.
- Tippecanoe County Fairgrounds by the four lane widening on Teal Rd from 9th St. to 18th St., sponsored by Lafayette.
- Tommy Johnston Park by the one way improvements on Grant/Chauncey from State to Williams, sponsored by Purdue Area Improvements.
- Prophetstown Park by the Six Lane Widening of I-65 from SR 43 to SR 38, sponsored by INDOT.

In general, the potential impacts to parks and open spaces from street and highway improvements would possibly involve added time and cost in site specific planning, permitting and construction for the improvement.

1000 N CR 900N 900 N CR 300V 800 N CR 700N 700 N 231 CR 600N 600 N S CR 500N CR 500N 500 N CR 450N 52 400 N CR 350N CR 300N 300 N CR2 CR 200N 200 N **CR 100N** Greenbush 100 N CR 50N S Unio 货 Division BASE LINE K **CR 700W** 100 S CR 950W CR 200S CR 200S Hag 200 S 300S CR 175W CR 400N 400 S CR 500S 500 S 52 CR 550S 600 S CR 6258 CR 6005 **CR 200E** 700 S R S CR 800S CR 800S 800 S SR 800S CR 900 CR 900S 1000 S 28 900 S 8 1100 S 400E 1200 S S 1300 S 1400 S 1000 W W 006 200 W 1000 E 800 W 700 W W 009 500 W 300 W 100 W SASE 100 E 300 E 400 E 500 E 600 E 700 E 900 E Legend Parks Tippecanoe County GIS Warehouse Area Plan Commission of Tippecanoe County Park, Open Space, Nature Area Sports Fields/Complex Golf Course Cemeterv Miles Interstates, Highways, Transportation Plan for 2030 Improvements and Major Roads One Way Improvements Interstate The Area Plan Commission New Interchange Four Lane Widening US Highway Intersection/Interchange Improvement of Tippecanoe County Four Lane Widen/New Road - State Highway Safety Improvement Four Lane Improvement Date: May 2006 Local Roads New Road Construction Disclaimers and copyright restrictions apply to this Six Lane Widening map and data. Complete disclaimer can be viewed New Road/Rural to Urban Rural Improvement at: http://www.tippecanoe.in.gov/gis/Disclaimer.htm Road Reconstruction Rural to Urban Imp.

Figure 3. Tippecanoe County Parks, Open Space, Recreational Facilities, and Cemeteries

Cemeteries

APC staff created a cemetery database from a land use survey in 1988-1989. It was subsequently converted into a GIS format by identifying the location and extent of the database's cemeteries for mapping purposes. The database was most recently updated in the fall of 2005.

The database includes 134 sites that have been documented by verifiable public information. However, there are 30 to 40 other cemetery sites that are not verifiable. It is estimated that Tippecanoe County has approximately 200 cemeteries. Figure 3depicts the verified cemetery locations in Tippecanoe County.

The Indiana Department of Natural Resources, Division of Historic Preservation and Archeology, through IC 14-21-1, require all improvements within 100 feet of a cemetery submit a development plan for approval. This requirement applies to any land containing human remains buried before January 1, 1940. Proximity analysis determined that the following cemeteries, within a 100 foot buffer of the 2030 Plan road improvements, are potential impact locations:

- Burton Cemetery (AKA Old Bilderback, Klondike) by the four lane widening on Klondike from US 52 to Lindberg, sponsored by Tippecanoe County and by the rural to urban improvement on US 52 from Klondike to Cumberland, sponsored by INDOT.
- Davis-Higman Cemetery by the four lane widening on North 9th St. from Swisher to Duncan Rd, sponsored by Tippecanoe County.
- Driscoll Cemetery by the new road construction on US 231 from SR 26 to US 52, sponsored by INDOT.
- Fink Cemetery (AKA Fink Meadows, Tharp, Ortmann) by the rural to urban improvement on Ortman from Old US 231 to 18th Street, sponsored by Lafayette.
- Grandview Cemetery by the road reconstruction on Salisbury from Meridian to Riley, sponsored by West Lafayette.
- Hebron Cemetery (AKA Grand Prairie Baptist (not Mt. Zion)) by the rural to urban improvement on Morehouse Rd from CR 600N to US 52, sponsored by Tippecanoe County.
- Kenny Cemetery by the rural to urban improvement on CR 450S from Concord Rd to US 52, sponsored by Tippecanoe County.
- Montmorenci Cemetery by the rural improvement on Jackson Highway from CR 650W to UAB, sponsored by Tippecanoe County.
- Old Union Cemetery (AKA Union, Bowers, Old Campbellite) by the rural improvement on CR 975E from Railroad to CR 1300S, sponsored by Tippecanoe County.
- Sickler Cemetery (AKA Lehman) by the rural to urban improvement on Ortman from Old US 231 to 18th Street, sponsored by Lafayette.
- Soldiers Home Cemetery (AKA Old Veterans Cemetery) by the rural to urban improvement on Soldiers Home from Kalberer to City Limits, sponsored by West Lafayette.
- Spring Grove Cemetery (AKA Ritchie) by the rural to urban improvement on CR 600S from Wea School Rd to CR 540E, sponsored by Tippecanoe County..

In general, the potential impacts of cemeteries from street and highway improvements would possibly involve added time and cost in site specific planning, permitting, construction, or alignment of the improvement. However, it is possible that an undocumented cemetery or unmarked gravesite may be encountered during a road construction causing a significant delay.

Wildlife and Endangered Species

The US Fish and Wildlife Services (USFWS), Midwest Region, provides a listing on its website of all endangered and threatened species for Tippecanoe County. The animals potentially located in the 2030 Transportation Plan area are listed in Table 1:

Table 1. Active and Candidate Endangered and Threatened Species in Tippecanoe County

Species	Status	Habitat	Habitat Specific		
MAMMALS					
Indiana Bat (Myotis sodalis)	Endangered	Statewide CRITICAL HABITAT: Big Wyandotte Cave (Crawford County), Ray's Cave (Greene County)	Hibernacula = Caves and mines; Maternity and foraging habitat = small stream corridors with well developed riparian woods; upland forests		
BIRDS					
Bald Eagle (Haliaeetus leucocephalus)	Threatened	Statewide			
REPTILES					
Eastern massasauga (Sistrurus c. catenatus)	Candidate	Allen, Carroll, Elkhart, Kosciuscko, LaGrange, LaPorte, Marshall, Noble, Porter, Pulaski, St. Joseph, Steuban, Tippecanoe			
MUSSELS					
Sheepnose (Plethobasus cyphyus)	Candidate	Carroll, Cass, Clark, Floyd, Fulton, Pulaski, Spencer, Tippecanoe , Vanderburgh, Warrick, White			
Clubshell (Pleurobema clava)	Endangered	d Carroll, Dekalb, Fulton, Kosciusko, Marshall, Pulaski, Tippecanoe, White			
Fanshell (Cyprogenia stegaria)	Endangered	Carroll, Daviess, Lawrence, Martin, Pike, Tippecanoe , Wabash, White	Rivers		

The USFWS has not designated critical habitats for the threatened or endangered species within Tippecanoe County (http://criticalhabitat.fws.gov/). However, the Indiana Bat and the Bald Eagle may appear in Tippecanoe County due to streams, rivers, and forested areas located along the Wabash River and Wildcat Creek, and throughout the County. The USFWS

will most likely request species surveys for road improvements because of species roosting and foraging. If a road improvement impacts the Wabash River or its upstream tributaries, the Clubshell and Fanshell mussels will most likely require mitigation activities.

It is also possible that a transportation project may encounter a state-listed endangered species. Indiana state law protects several species and the Indiana Division of Fish and Wildlife (IDFW) will need to be contacted during the EIS phase for potential impacts on state-listed species' habitat.

In general, the potential impacts of endangered and threatened species from street and highway improvements would possibly involve added time and cost in site specific planning, permitting, construction, or alignment of the improvement.

Floodplains

Staff obtained the digital Federal Emergency Management Agency (FEMA) floodplain data from the GIS atlas for Indiana². In Tippecanoe County there are approximately 48 square miles of land in the 100-year flood zone and an additional 2 square miles in the 500-year flood zone.

The Multi-Hazard Mitigation Plan for Tippecanoe County was adopted by the county and cities in the fall of 2006. The plan describes the risk assessment and the mitigation goals and projects in relation to flood hazard zones. The plan should be used as guidance for improvement projects. In addition, local floodplain ordinances and the Tippecanoe County Drainage Board must be consulted for all street and highway improvements.

Proximity analysis determined that approximately 40 road projects pass through the 100-year or 500-year FEMA flood hazard zone as shown in Table 2.

Table 2. Projects Crossing the 100-Year and/or the 500-Year Flood Hazard Zone

Project	Location	Project Sponsor	Improvement
Concord	Teal/US 52 to Brady	Lafayette	Four Lane Widening
Concord	Brady to CR 350S	Lafayette	Four Lane Widening
Concord Rd	CR 430S to CR 600S	Tippecanoe Co	Four Lane Widening
CR 500N	US 231 to N. River Road	Tippecanoe Co	Rural to Urban Imp.
CR 500S	Wea School Road to Concord	Private Development	New Road Construction
CR 600S	US 231 to CR 250E	Private Development	New Road Construction
CR 600S	Wea School Rd to CR 540E	Tippecanoe Co	Rural to Urban Imp.
CR 700W	SR 25 to Division Rd	Tippecanoe Co	Rural Improvement
CR 75E	CR 600N to Soldiers Home	Tippecanoe Co	Rural to Urban Imp.
CR 900E	CR 400N to CR 700N	Tippecanoe Co	Rural Improvement
Happy Hollow	US 52 to N. River Road	West Lafayette	Rural to Urban Imp.
I-65	US 231 to SR 43	INDOT	Six Lane Widening
I-65	SR 43 to SR 38	INDOT	Six Lane Widening
I-65	SR 38 to County Line	INDOT	Six Lane Widening
Jackson Highway	CR 650W to UAB	Tippecanoe County	Rural Improvement
Jackson Highway	UAB to SR 26	Tippecanoe Co	Rural to Urban Imp.
Morehouse Rd	CR 600N to US 52	Tippecanoe Co	Rural to Urban Imp.
Morehouse Rd	County Line to CR 600N	Tippecanoe Co	Rural Improvement

² FEMA is revising the Floodplain delineations for Tippecanoe County in the years of 2006 and 2007. It is expected that new floodplain delineations will be available in 2008.

55

Project	Location	Project Sponsor	Improvement
N. River Road &			
Harrison	Dehart to Happy Hollow	West Lafayette	Four Lane Widening
North 9th St.	Swisher to Duncan Rd	Tippecanoe Co	Four Lane Widening
	Curve Correction to CR		New Road
North Yeager	500N	Tippecanoe Co	Construction
Ortman	Old US 231 to 18th Street	Lafayette	Rural to Urban Imp.
Prophetstown Pk	SR 43 to North 9th	INDOT	New Road Construction
S. River Road	County Line to CR 700W	Tippecanoe Co	Rural Improvement
South 18 th	CR 430S to CR 510S	Tippecanoe Co	Four Lane Widening
South 9 th	Twyckenham to CR 350S	Lafayette	Four Lane Widening
South 9 th	Owen to Teal	Lafayette	Four Lane Widening
South 9 th	CR 430S to CR 510S	Tippecanoe Co	Four Lane Widening
SR 25	CR 375W to CR 100W	INDOT	Four Lane Widening
SR 25	Old US 231 to Teal	Lafayette	Four Lane Widening
			New Road
SR 25	Hoosier Heartland	INDOT	Construction
SR 25 (350S)	New US 231 to Poland Hill	INDOT	Four Lane Widening
SR 26	CR 550E to CR 900E	INDOT	Four Lane Widening
SR 43	I-65 to CR 725N	INDOT	Four Lane Widening
Teal	S. 4th to 9th Street	Lafayette	Four Lane Widening
US 231	CR 500S to County Line	INDOT	Four Lane Widening
US 231	S. River Road to SR 26	INDOT	New Road Construction
			New Road
US 231	US 52 to I-65	INDOT	Construction
US 52	Klondike to Cumberland	INDOT	Rural to Urban Imp.
		Private	New Road
WL E/W Collector	CR 100W to Soldiers Home	Development	Construction

In general the potential impacts from flood zones to street and highway improvements would possibly involve time and cost in site specific planning, permitting and construction. Refer to the following section for additional information regarding potential source water protection requirements.

Water Quality

In Tippecanoe County, most entities and residences rely on groundwater that is withdrawn from local aquifers for potable water which may or may not receive treatment. In addition to public supply, Tippecanoe County surface water resources and wetlands are crucial to wildlife, agriculture, businesses, and recreational users. The water quality of surface and groundwater sources is monitored by the Indiana Department of Natural Resources (IDNR) and Indiana Department of Environmental Management (IDEM). These state agencies are responsible for regulating monitoring, and enforcing the water quality and source protection laws. In addition, the Tippecanoe County Soil and Water Conservation District (SWCD) is the local representative of state government responsible for coordinating the conservation of soil, water, and related natural resources.

Ensuring that the source water is protected from contamination will reduce the potential costs of treatment, and risks to public health. In addition, many of the larger street and highway improvements may require National Pollutant Discharge Elimination System (NPDES) project and storm water permitting by IDEM.

In general, the potential impacts from source water protection and runoff permitting to street and highway improvements would possibly involve added time and cost in site-specific planning.

Groundwater

In general, municipal water supply is taken from the Lafayette (Teays) Bedrock Valley System, associated with the Wabash River which traverses north-central Indiana as shown in Figure 4. Additionally, the Silurian-Devonian aquifer (carbonate-rock), and other surficial sand and gravel aquifers may be utilized in Tippecanoe County by rural wells.

Recharge of local aquifers occurs in the same manner as do many of the other aquifers in the state, namely by the downward percolation of local rainfall through the soil horizon and underlying formations. However, localized significant rainstorms can produce relatively quick response to recharge especially if adjacent areas did not receive the rainfall.

Care must be taken to ensure the quality of the water from alluvial and surficial aquifer source waters. Potential pollution from construction, sewage outfall, illegal dumping, agriculture, and storm water runoff must be avoided or controlled due to the recharge of these aquifers from runoff and river water.

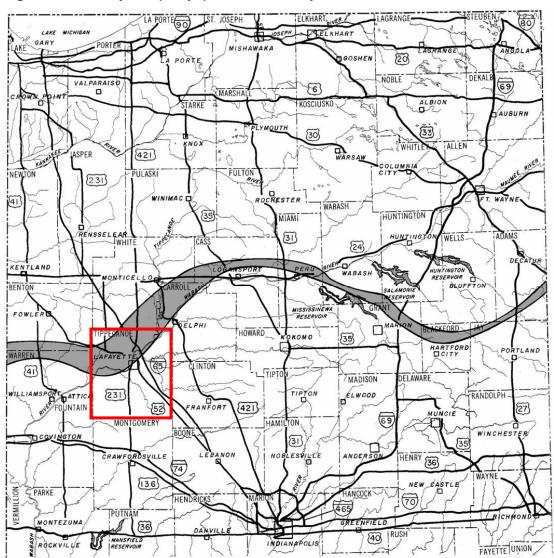


Figure 4. Lafayette (Teays) Bedrock Valley in the State of Indiana

River, Streams, Lakes, and Other Surface Water

The Wabash Valley is the most striking physiographic feature of this county. All of Tippecanoe County is within the drainage basin of the Wabash River, which crosses the county from the northeastern corner to near the center of the western boundary. In addition, there are many watersheds and sub watersheds within Tippecanoe County. Two main tributaries, the Tippecanoe River and Wildcat Creek, enter the Wabash River in the northeastern part of the county. Little Pine Creek, Indian Creek, Burnett's Creek and Moot's Creek are minor tributaries from the north; Sugar Creek and Buck Creek enter from the east, and finally, Wea Creek and Flint Creek come in from the south. In all, there are 65 waterways within Tippecanoe County according to IDEM as shown in Figure 5.

The Indiana Department of Environmental Management's List of Impaired Waters³ includes the Wabash River segments noted in Table 3. Additional mitigation activities may be required surrounding these impaired reaches of the Wabash.

Table 3.	Tippecanoe County Im	paired Water Bodies
----------	----------------------	---------------------

		WATERBODY		
BASIN	14-DIGIT HUC	SEGMENT ID	WATERBODY SEGMENT NAME	BASIN
Upper				FCA for
Wabash	5120105060010	INB0561_M1010	Wabash River - main stem	MERCURY
Upper				FCA for
Wabash	5120105060020	INB0562_M1011	Wabash River - main stem	MERCURY
Upper				FCA for
Wabash	5120105070030	INB0573_M1012	Wabash River - main stem	MERCURY
Lower				FCA for
Wabash	5120108010030	INB0813_M1001	Wabash River	MERCURY
Lower				FCA for
Wabash	5120108010040	INB0814_M1002	Wabash River	MERCURY
Lower				FCA for
Wabash	5120108030010	INB0831_M1003	Wabash River - D/S Wea Creek	MERCURY
Lower			Wabash River - Granville Bridge to Flint	FCA for
Wabash	5120108030030	INB0833_M1004	Creek	MERCURY
Lower				FCA for
Wabash	5120108030110	INB083B_M1007	Wabash River - below Independence	MERCURY

Proximity analysis determined the only surface water body impact by the transportation improvements would be the Wabash River for the following projects:

- The rural improvement on CR 700W from SR 25 to Division Rd. (Tippecanoe County)
- The four lane widening on North 9th St. from Swisher to Duncan Rd. (Tippecanoe County)
- The six lane widening on I-65 from SR 43 to SR 38 (INDOT)

In general, care must be taken to ensure the quality of the County's surface water. Potential pollution from construction, sewage outfall, illegal dumping, agriculture, and storm water runoff must be avoided or controlled to ensure healthy water for wildlife and humans. It is also important to protect surface water since it is used as a recharge mechanism for local alluvial and bedrock aquifers used for drinking water.

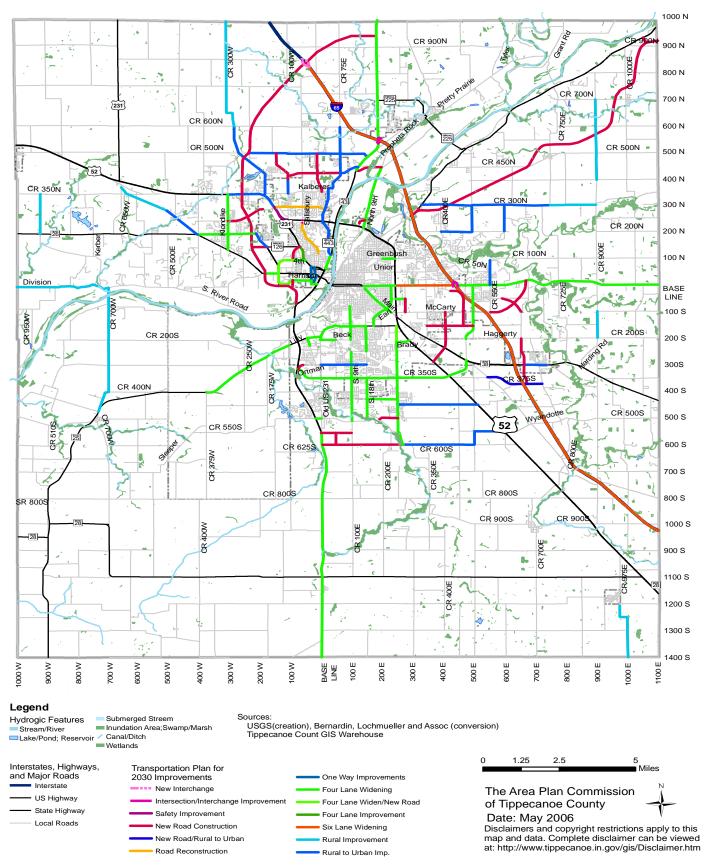
Wetlands

Wetlands are areas of land that are wet (saturated or flooded) for at least part of the year, have soils that formed under wet conditions and support vegetation that can live in wet or moist areas. Wetlands are important because they naturally perform many functions we value as a society. Wetlands, depending on their location, can provide habitat for fish, wildlife, flood

58

³ Indiana Integrated Water Quality Monitoring and Assessment Report, Appendix C: Indiana's 305(b) Assessment and 303(d) Listing Methodology 2006, IDEM2006 http://www.in.gov/idem/programs/water/303d/index.html

Figure 5. Tippecanoe County Hydrologic Features and Wetlands



protection, shoreline stabilization, groundwater recharge, water quality protection and recreation. According to National Wetland Inventory (2003) there are approximately 20 square miles of wetlands in Tippecanoe County. However, State agencies, such as INDOT, are continually updating the wetland delineations during site investigations.

In general, the potential impacts of wetlands from street and highway improvements would possibly involve added time and cost in site specific planning, permitting, construction, or alignment of the improvement.

A proximity analysis determined the following 33 improvements listed in Table 4 may impact wetland locations.

 Table 4.
 Transportation Plan for 2030 Projects in Close Proximity of Wetlands

Project	Location	Project Sponsor	Improvement
Concord Rd	CR 430S to CR 600S	Tippecanoe County	four lane widening
CR 500E	SR 26 to Haggerty	Tippecanoe County	four lane widening
CR 550S	US 231 to CR 50E	Private Development	new road construction
CR 600S	US 231 to CR 250E	Private Development	new road construction
CR 700W	SR 25 to Division Rd	Tippecanoe County	rural improvement
CR 925W	CR 350N to SR 26	Tippecanoe County	rural improvement
CR 975E	Railroad to CR 1300S	Tippecanoe County	rural improvement
Cumberland Ext.	Cumberland to Klondike	Tippecanoe County	new road construction
I-65	US 231 to SR 43	INDOT	six lane widening
I-65	SR 43 to SR 38	INDOT	six lane widening
I-65	SR 38 to County Line	INDOT	six lane widening
Jackson			
Highway	CR 650W to UAB	Tippecanoe County	rural improvement
Klondike	US 52 to Lindberg	Tippecanoe County	four lane widening
Lindberg	Klondike To McCormick	Tippecanoe County	four lane widening
McCarty Lane	CR 550E to SR 26	Tippecanoe County	new road construction
			rural to urban
Morehouse Rd	CR 600N to US 52	Tippecanoe County	improvement
North 9th St.	Swisher to Duncan Rd	Tippecanoe County	four lane widening
North Yeager	Curve Correction to CR 50	Tippecanoe County	new road construction
Park East Drive	McCarty to E-W Collector	Private Development	new road construction
Prophetstown Pk	SR 43 to North 9th	INDOT	new road construction
S. Intramural	Harrison to US 231	INDOT	new road construction
South 18th	CR 430S to CR 510S	Tippecanoe County	four lane widening
SR 25	Hoosier Heartland	INDOT	new road construction
SR 25 (350S)	New US 231 to Poland Hill	INDOT	four lane widening
SR 26	CR 550E to CR 900E	INDOT	four lane widening
SR 26	US 52 to I-65	INDOT	six lane widening
SR 43B	I-65 to SR 43	INDOT	new road construction
US 231	CR 500S to County Line	INDOT	four lane widening
US 231	SR 26 to US 52	INDOT	new road construction
US 231	S. River Road to SR 26	INDOT	new road construction
US 231	US 52 to I-65	INDOT	new road construction
WL E/W			
Collector	CR 100W to Soldiers Home	Private Development	new road construction
WL N/S Collector	CR 500N to Kalberer	Private Development	new road construction

Hazardous Waste Sites/Superfund Sites

The Superfund program, also known as the National Priorities List (NPL), was created as a result of the Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA was enacted in 1980, and amended by the Superfund Amendments and Reauthorization Act of 1986. These acts establish broad authority for the government to respond to problems posed by the release or threat of release, of hazardous substances and provide the authority for the government to undertake enforcement and abatement action against responsible parties.

Staff obtained the March 2007 listing of open and archived hazardous waste sites from the CERCLA Information System (CERCLIS) online database. Both archived and open CERCLA sites must be considered in environmental impact studies.

Table 5. Active Superfund Site Information for Tippecanoe County (2007)

EPA ID	Site Name	City	County	State	NPL Status
IND980997639	Tippecanoe Sanitary Landfill, Inc.	LAFAYETTE	TIPPECANOE	IN	Final NPL
INSFN0507954	Elliott Ditch/Wea Creek Sediment Site	LAFAYETTE	TIPPECANOE	IN	Not NPL (ESI on going)
IND985104413	Old Monon Rail Rebuilding Shop	LAFAYETTE	TIPPECANOE	IN	Not NPL (SI on going)

The Toxics Release Inventory (TRI)⁴ is an additional publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. Staff obtained a list of facilities from the EPA TRI Explorer - Releases: Facility Report spatial data from the EPA Enviofacts website⁵.

In addition to the CERCLA hazardous waste sites, information was gathered from the GIS Atlas for Indiana website⁶ for Tippecanoe County locations of:

- 1 waste storage treatment and disposal site
- 2 septage waste site locations
- 47 industrial waste sites
- 5 active permitted solid waste sites
- 2 tire waste sites
- 3 waste transfer sites
- 2 open dumps
- 10 brownfield areas
- 1 Resource Conservation and Recovery Act corrective action site
- 11 voluntary remediation program sites
- 1 construction and demolition waste facility

In total, there is one accepted Superfund and 15 TRI release or reporting sites located with in Tippecanoe County.

⁴ The U.S. Environmental Protection Agency (EPA) maintains this information in a database called the Toxics Release Inventory (TRI), which is available to the public over the Internet (http://www.epa.gov/tri) and in written reports. A federal law called the Emergency Planning and Community Right to Know Act (EPCRA) gives you the right to know about toxic chemicals being released into the environment. The law requires facilities in certain industries, which manufacture, process, or use significant amounts of toxic chemicals, to report annually on their releases of these chemicals. The reports contain information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

http://www.epa.gov/enviro (March 1, 2007 report)

⁶ Data provided to the GIS Atlas for Indiana by Indiana Department of Environmental Management (IDEM), Office of Land Quality, Current as of January 24, 2007 -- (added on February 20, 2007).

Proximity analysis determined that only the North 9th St., Swisher to Duncan Rd, widening is in the proximity of the Tippecanoe County Sanitary Landfill Superfund site. However, two hazardous waste sites were found located within the buffer zone (150 ft surrounding limited access facilities and the 50 ft surrounding all other roads) for the following road improvements:

- Caterpillar Incorporated may impact the widening of SR 26 from US 52 to I-65.
- Rea Magnet Wire Company may impact the widening project on Concord Rd, from CR 430S to CR 600S.

Leaking Underground Storage Tanks (LUST)

If a release from an Underground Storage Tanks (UST) system is suspected or confirmed, the owner and operator must report it to IDEM, stop any on-going release, investigate to determine the type and extent of contamination, and conduct cleanup actions as necessary. These sites are called Leaking USTs (LUST). The current listing of known LUST was found on the GIS Atlas for Indiana website⁷. The dataset consists of known sites with leaking underground storage tanks.

In total there are approximately 137 LUSTs out of approximately 300 USTs listed in Tippecanoe County. Proximity analysis determined that there are 29 known LUST locations within the proximity buffer of 19 scheduled street and highway improvements as listed in Table 6. It is

Table 6. Transportation Plan for 2030 Projects in the Close Proximity of Possible Leaking Underground Storage Tanks

Project	Location	Project Sponsor	Improvement
Concord	Teal to Maple Point Ext	Lafayette	Four Lane Widen/New Road
Concord	Brady to CR 350S	Lafayette	Four Lane Widening
CR 500E	SR 26 to Haggerty	Tippecanoe County	Four Lane Widening
Cumberland	Yeager to Salisbury	West Lafayette	Road Reconstruction
Earl Avenue	South Street to Teal Road	Lafayette	Four Lane Widening
Grant/Chauncey	Fowler to State	Purdue Area Improvements	One Way Improvements
Greenbush	Elmwood to US 52	Lafayette	Four Lane Widening
Main Street	18th to McCarty Lane	Lafayette	Four Lane Widening
Morehouse Rd	County Line to CR 600N	Tippecanoe County	Rural Improvement
Salisbury	Meridian to Riley	West Lafayette	Road Reconstruction
Salisbury	Navajo St	West Lafayette	Intersection Improvement
South Street	Main Street to Earl Avenue	Lafayette	Four Lane Widening
SR 25	CR 375W to CR 100W	INDOT	Four Lane Widening
SR 25	Old US 231 to Teal	Lafayette	Four Lane Widening
SR 26	31st St. to west of US 52	INDOT	Four Lane Widening
SR 26	US 52 to I-65	INDOT	Six Lane Widening
SR 43	CR 725N to County Line	INDOT	Four Lane Widening
SR 43	I-65 to CR 725N	INDOT	Four Lane Widening
Teal	9th Street to 18th Street	Lafayette	Four Lane Widening
US 52	Cumberland to Yeager	INDOT	Safety Improvement

⁷ Indiana Department of Environmental Management, Office of Land Quality, Indianapolis, Indiana 01/24/07

-

important to note that the property access point is considered in this analysis and not the actual tank location. Therefore the tank, in most instances, will not physically lie within the street or highway improvement area.

In general, the potential impacts from known and undiscovered LUSTs to street and highway improvements would possibly involve added time and cost in site-specific planning, permitting, and construction.

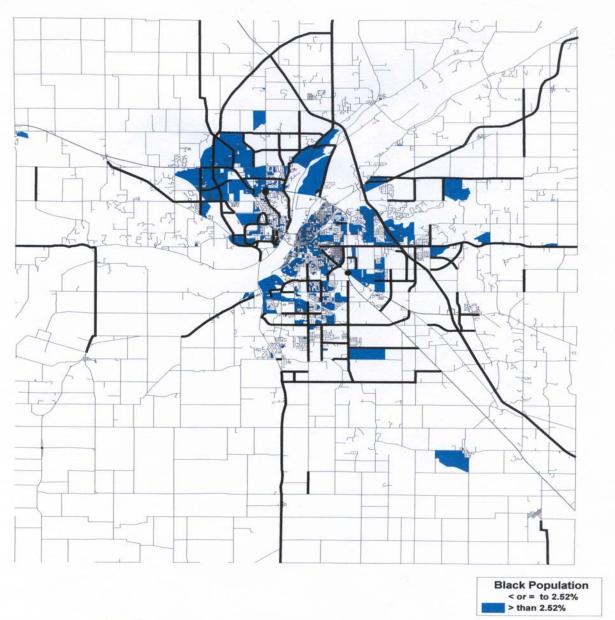
CONCLUSION

Although general in nature, this analysis found that the social and environmental impacts, identified at the county level, would not preclude final plan adoption. Several potential impacts to locations may require increased time and costs in planning and review process due to compliance with environmental and historical regulations, additional right-of-way acquisition, and potential accommodation or mitigation activities to neighborhoods, businesses, and historical places. Furthermore, a detailed site-specific environmental impact statement will be required by the National Environmental Policy Act (NEPA), for any street or highway project utilizing federal funds. In short, the analysis provided in this Appendix is to encourage an early forum for discussion and consideration of the potential system level impacts during the plan adoption phase.

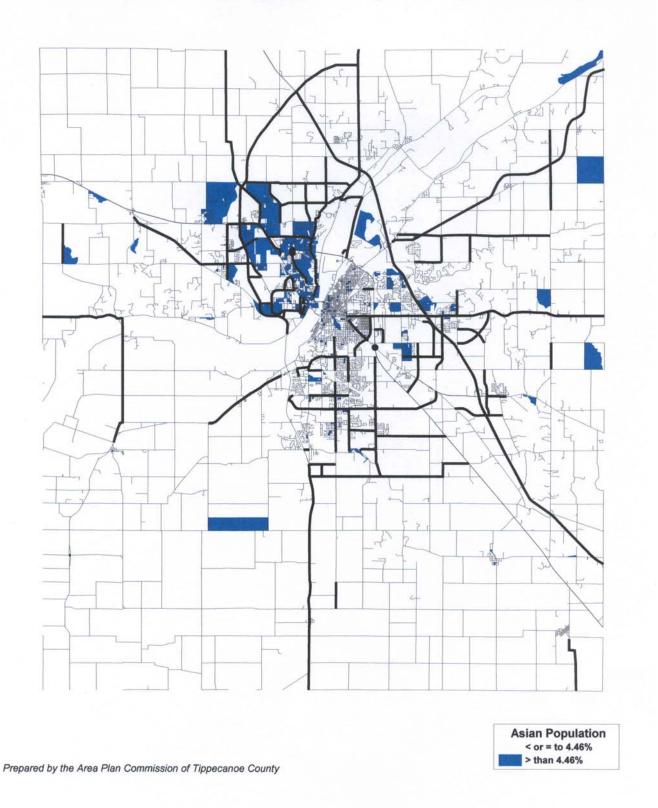
Appendix 4

Environmental Justice Mapping

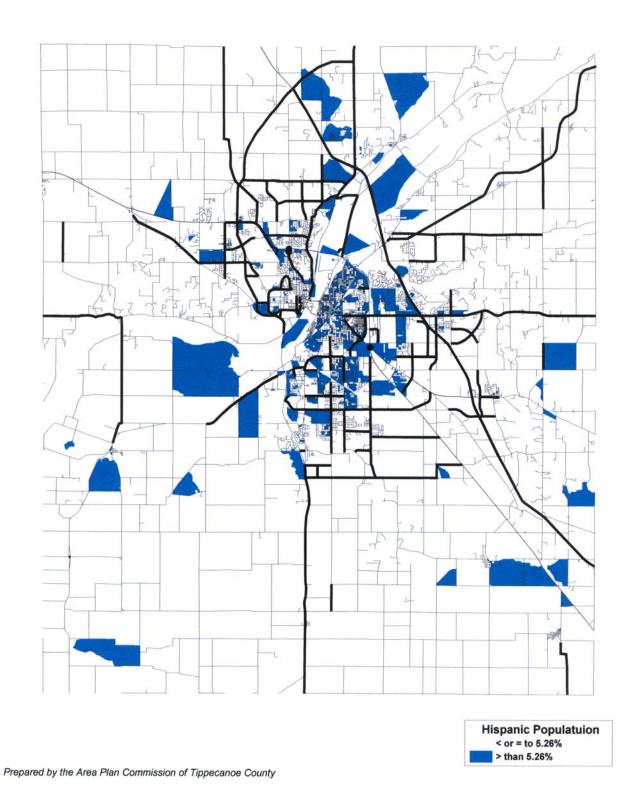




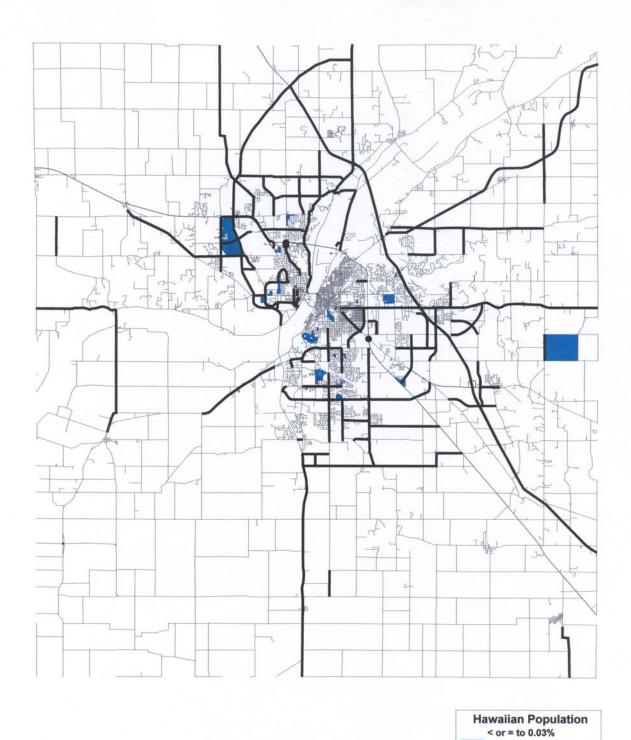
2000 Census Blocks having a higher than average Asian Population of 4.46 percent



2000 Census Blocks having a higher than average Hispanic Population of 5.26 percent

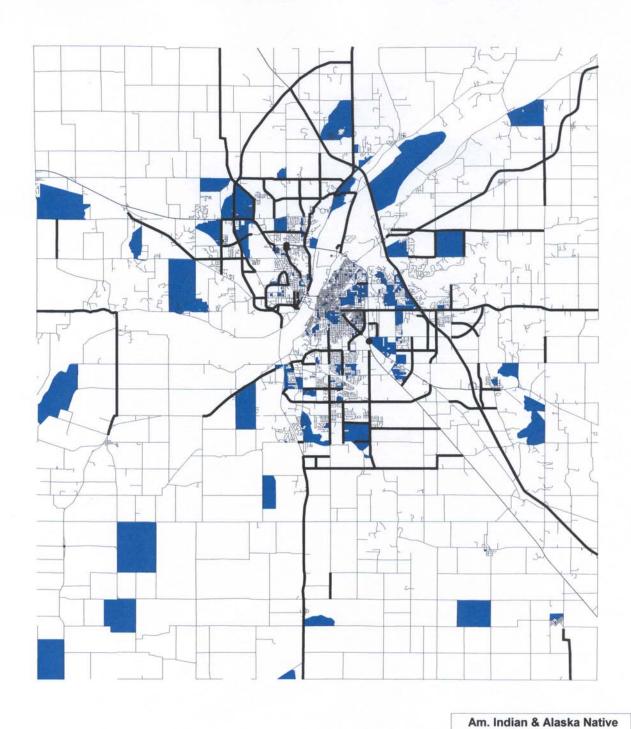


2000 Census Blocks having a higher than average Hawaiian Population of 4.46 percent



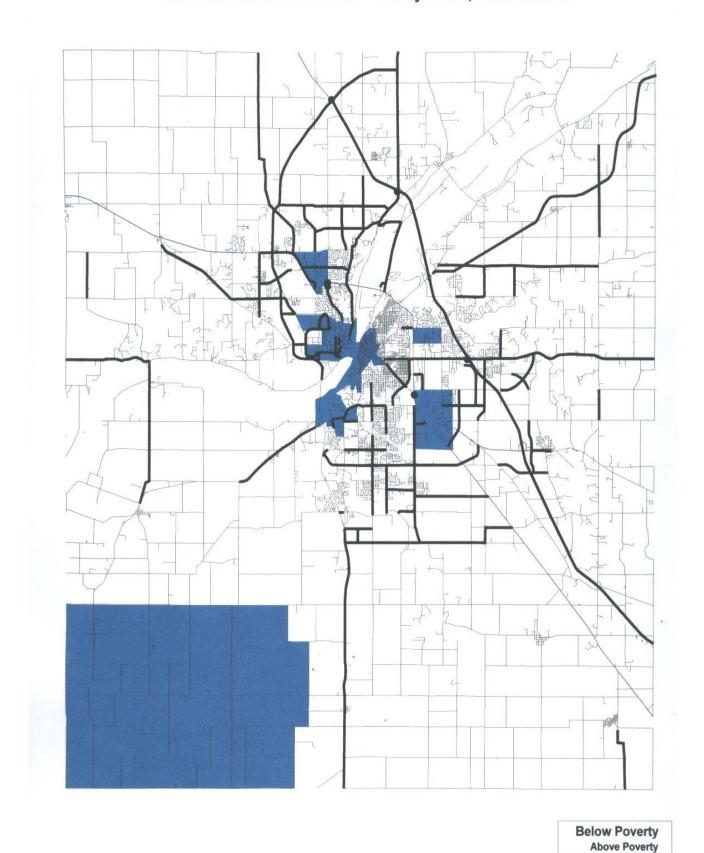
Prepared by the Area Plan Commission of Tippecanoe County

2000 Census Blocks having a higher than average American Indian and Alaskan Native Population of 0.28 percent



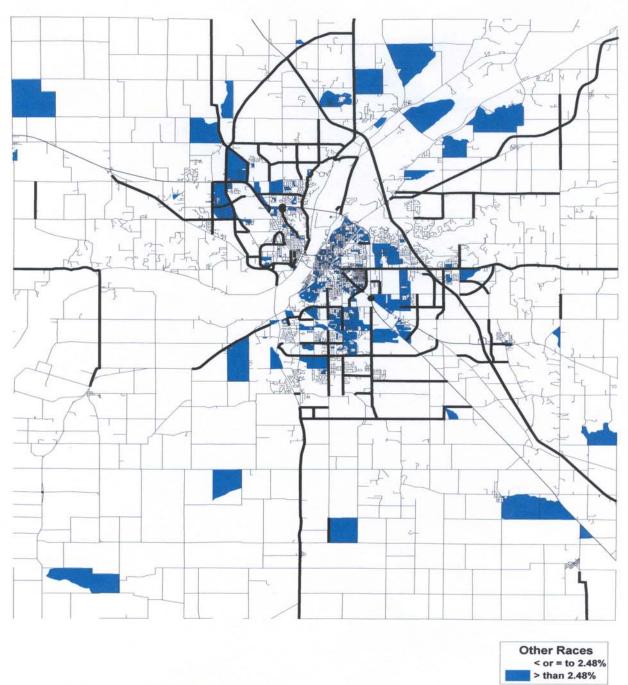
Prepared by the Area Plan Commission of Tippecanoe County

Ratio of Income in 1999 to Poverty Level, 2000 Census



Below Poverty

Other Races 2000 Census Blocks having a higher than average Population of 2.48 percent



Prepared by the Area Plan Commission of Tippecanoe County

Appendix 5

Community Involvement, Review and Adoption

Meetings, Mailings, and Media Coverage

Technical Transportation Committee (TTC) meeting notice & agenda mailed TTC meeting The committee reviewed the projected 2030 zonal employment and dwelling units, recent building permit activity, map of projects remaining from the 2025 Plan, and suggested additional projects for inclusion into the 2030 Plan.	2-10-2006 2-15-2006
Journal &Courier newspaper article covering the 2-15-2006 TTC meeting Citizen Participation Committee (CPC) meeting notice &agenda mailed Press Release for CPC faxed to media Call to Journal &Courier newspaper about upcoming CPC meeting. Press Release faxed again to J&C WBAA request for information Sent WBAA requested information WBAA response	2-16-2006 2-17-2-06 2-21-2006 2-24-2006 2-24-2006 2-27-2006 2-27-2006 2-27-2006
WBAA morning news announcement of upcoming CPC mtg. Journal &Courier newspaper announcement of the 2-28-2006 CPC meeting CPC meeting The Committee reviewed the projected 2030 zonal employment and dwelling units, recent building permit activity, map of projects resulting	2-28-2006 2-28-2006 2-28-2006
from 2-25-2006 Technical Committee meeting, and suggested additional projects for inclusion into the 2030 Plan. (Minutes follow) Journal &Courier newspaper article covering the 2-29-2006 CPC meeting WBAA morning news coverage of CPC, w/ interview on 2030 Plan Staff discussed potential Federal Aid project list with the Lafayette Engineer Staff discussed potential Federal Aid project list with the West Lafayette	3-1-2006 3-2-2006 3-3-2006 3-2-2006
Engineer Staff discussed potential Federal Aid project list with the Tippecanoe Co. Engineer	3-1-2006
TTC meeting notice & agenda mailed Administrative Committee meeting notice & agenda mailed TTC meeting The Committee reviewed the suggestions from the CPC Committee, a list of all projects, a list of projects likely to apply for Federal Aid, a map	3-9-2006 3-9-2006 3-18-2006
of all the projects, and fiscally constrained the list of Federal Aid projects. Administrative Committee meeting The Committee reviewed the projected 2030 zonal employment and dwelling units, recent building permit activity, the map of all the projects, the list of all projects, and the list of fiscally constrained projects for	3-21-2006
Federal Aid. APC Transportation Study Committee meeting notice & agenda mailed APC Transportation Study Committee meeting The Committee reviewed the projected 2030 zonal employment and dwelling units, recent building permit activity, the map of all the projects, the list of all projects, and the list of fiscally constrained projects for Federal Aid.	3-22-2006 3-29-2006
TTC meeting notice, agenda, and draft Plan mailed TTC meeting The Committee reviewed the draft Plan and made one amendment to the list of pr	4-12-2006 4-19-2006 rojects and to the
map. APC Trans. Study Committee meeting notice, agenda, & draft Plan mailed Administrative Committee meeting notice, agenda, & draft Plan mailed APC Transportation Study Committee meeting	4-18-2006 4-21-2006 4-26-2006
The Committee reviewed the draft Plan. Citizen Participation Committee (CPC) meeting notice for public hearing & agenda mailed	4-27-2006

Presentation of the Plan to the Transportation Committee of the Chamber of Commerce	4-27-2006
Legal advertisement appeared in the Journal & Courier newspaper for the public hearing on the Plan	4-28-2006
Administrative Committee meeting The Committee reviewed the draft Plan and voted to proceed with approval	5-3-2006
Legal advertisement appeared in the Lafayette Leader newspaper for the public hearing on the Plan	5-4-2006
Press Release about the CPC public hearing was faxed to all media	5-8-2006
Newspaper article in the Journal & Courier about public hearing on Plan	5-9-2006
CPC public hearing on the <i>Transportation Plan for 2030</i>	5-9-2006
TTC meeting notice, agenda & draft Plan mailed	5-10-2006
APC public hearing notice, agenda & draft Plan mailed	5-11-2006
TTC meeting	5-17-2006
APC public hearing	5-17-2006
2007 Amendments Legal advertisement in the Journal and Courier newspaper giving meeting dates	5-9-2007
for consideration of 2030 Plan	
Legal advertisement in the Lafayette Leader newspaper giving meeting dates for consideration of 2030 Plan	5-9-2007
CPC meeting agenda, staff report, & draft amendments mailed	5-11-2007
TTC meeting agenda, staff report, & draft amendments mailed	5-11-2007
Administrative Committee meeting agenda, staff report, & draft amendments mailed	5-11-2007
Newspaper article in the Journal and Courier about CPC, Technical and Administrative Committee meetings to consider the 2030 Plan	5-20-2007
Technical Transportation Committee meeting	5-22-2007
Citizen Participation Committee meeting	5-22-2007
Newspaper article in the Journal and Courier about the development of the 2030 Plan amendments and projects	5-27-2007
Administrative Committee meeting	5-30-2007
APC Executive Committee meeting agenda, staff report, & draft amendments mailed	5-11-2007
	5-31-2007
Executive Committee of the APC public hearing and adoption of the Plan	6-6-2007

Copies of all documentation listed above are available in the APC office.

Mailing Lists For Plan Distribution

CITIZEN PARTICIPATION COMMITTEE MAILING LIST

NORTHWEST CENTRAL LABOR COUNCAL

WABASH RIVER CYCLE CLUB, Advocacy Chair

LAURAMIE TOWNSHIP TRUSTEE, Bill Easterbrook

LAFAYETTE SCHOOL CORPORATION, Ed Eiler, Superintendent

PURDUE RESEARCH FOUNDATION, J. H. Wilson

IZAAK WALTON LEAGUE, Jim Brown

CITIZENS ADVOCATING FOR RESPONSIBLE DEVELOPMENT, Jeffrey Lucas

AREA PLAN COMMISSION, Gary Schroeder

TIPPECANOE TOWNSHIP TRUSTEE, Bill Jones

TIPPECANOE COUNTY FARM BUREAU, Alan Kemper

SCHOOL OF CIVIL ENGINEERING, Jon Fricker

DIRECTOR, WEST LAFAYETTE COMMUNITY DEVELOPMENT, Josh Andrew

FAIRFIELD TOWNSHIP TRUSTEE, Jerry Smelser

NEIGHBORHOOD HOUSING SERVICES, Dennis Schluttenhofer

CENTENNIAL NEIGHBORHOOD ASSOC, Bea Smith

COMMUNITY & FAMILY RESOURCE CENTER

RANDOLPH TOWNSHIP VOL FIRE DEPT, Keith Barker

SIERRA CLUB, Marcia Daehler

WAYNE TOWNSHIP TRUSTEE, Norman Hayman

WILDCAT PARK FOUNDATION INC, Persis Hass Newman

CHAMBER OF COMMERCE, Sarah Ellison

JACKSON TOWNSHIP TRUSTEE, Sharon Lee Corwin

SYCAMORE AUDUBON

WEST LAFAYETTE SCHOOL CORPORATION, Iran G.Floyd, Superintendent

WEST LAFAYETTE HUMAN RELATIONS, Virginia Nead

WEST LAFAYETTE ENVIRONMENTAL COMMISSION, Sean Sullivan

TIPPECANOE SCHOOL CORPORATION, Paul Slavens

INDIANA BICYCLE COALITION, Norm Olson

LEAGUE OF WOMEN VOTERS

VISION 2020, Kathy Dale

WEA TOWNSHIP TRUSTEE, Matthew Koehler

BUILDERS ASSOCIATION OF GRREATER LAFAYETTE Pat Foley

PURDUE EXPONENT, J Taylor Rushing

BOARD OF REALTOR, Scott Brown

LAFAYETTE COMMUNITY DEVELOPMENT DEPTMENT, Tom Van Horn

HIGHLAND NEIGHBORHOOD ASSOCIATION, Gary Nowling

VINTON NEIGHBORHOOD ASSOCIATION, Geneva Werner

ST MARYS NEIGHBORHOOD ASSOCIATION, Jane Turner

WALLACE TRIANGLE NEIGHBORHOOD ASSOCIATION, Jim Noonan

COLUMBIAN PARK NEIGHBORHOOD ASSOCIATION, Kim Davis

PERRIN NEIGHBORHOOD ASSOCIATION, Kyle Gingrich

MCALLISTER ST LAWRENCE, Laura Bartrom

HEDGEWOOD NEIGHBORHOOD ASSOCIATION, Melissa Williamson

LINCOLN NEIGHBORHOOD ASSOCIATION, Monique Fonpaine

HANNA NEIGHBORHOOD ASSOCIATION, Pat Altepeter

HISTORIC JEFF NEIGHBORHOOD ASSOCIATION, Pat Wilkerson

MONON NEIGHBORHOOD ASSOCIATION, Tom Pierce Sr

DOWNTOWN NEIGHBORHOOD ASSOCIATION, Allen Jacobson

HANNA COMMUNITY CENTER NEIGHBORHOOD ASSOCIATION

NEW CHAUNCEY NEIGHBORHOOD ASSOCIATION, Carl Griffin

HISTORIC NINTH STREET HILL NEIGHBORHOOD ASSOCIATION, Sandy Lahr

INTERESTED CITIZENS:

Steve Clevenger

Joe Summers

Steve Needham

Barbara Hunter

Bob Carpenter

Alice Abbott

JOURNAL & COURIER NEWSPAPER

LAFAYETTE LEADER NEWSPAPER

BUSINESS DIGEST

WAZY, RADIO

WBAA, RADIO

WKOA, RADIO

WLFI TV 18

WKHY, RADIO

TECHNICAL TRANSPORTATION COMMITTEE MAILING LIST KUMARES SINHA, JOINT TRANSPORTATION REAEARCH PROGRAM ALAN PLUNKETT, INDOT

DAVE BUCK, WEST LAFAYETTE CITY ENGINEER

MARTY SENNETT, CITYBUS

J.T. WALKER, WEST LAFAYETTE POLICE DEPT

MAYOR JAN MILLS, WEST LAFAYETTE

DENNIS CARSON, DIRECTOR COMMUNITY DEVELOPMENT DEPT

GARY SCHROEDER, PRES. AREA PLAN COMMISSION

JENNIFER BONNER, CITY ENGINEER

BETTY STANSBURY, PURDUE AIRPORT

K D BENSON, COUNTY COMMISSIONER

JOHN KNOCHEL, COUNTY COMMISSIONER

RUTH SHEDD, COUNTY COMMISSIONER

DAVID FRANKLIN. FEDERAL HIGHWAY ADMINISTRATION

DANA SMITH, PRESIDENT, LAFAYETTE-WEST LAFAYETTE

ANN HUNT, PRES., WEST LAFAYETTE CITY COUNCIL

JON D FRICKER, CHAIRMAN, TECHNICAL TRANSPORTATION COMMITTEE

CARTER KEITH, INDOT

H. MIKE YAMINE, INDOT

DAVE FRANKLIN, FHWA

ROBERT FOLEY, LAFAYETTE CITY ENGINEERS OFFICE

OPAL KUHL, EXECUTIVE DIRECTOR TIPPECANOE COUNTY HIGHWAY

LAFAYETTE BUSINESS DIGEST

NEWS DIRECTOR WASK

WAZY NEWS DIRECTOR

JOURNAL & COURIER, ATTN: DAN SHAW

LAFAYETTE LEADER

AREA PLAN COMMISSION MAILING LIST

DAVID R. WILLIAMS, President, Citizen appointee by, Lafayette Mayor

CARL GRIFFIN, Vice President, West Lafayette City Council Member

MICHAEL D. SMITH, Lafayette City Council Appointed by the Mayor

GARY SCHROEDER, President, Citizen appointee by County Commissioners

KD BENSON, County Commissioner Representative

TOM MURTAUGH, County Council Member

BERNARD BULKER, Citizen appointee by West Lafayette Mayor

RUTH SHEDD, County Commissioner Representative

KATHY VERNON, County Council Member

TIM SHRINER, Citizen appointee by Lafayette Mayor

JOHN WILSON, Battleground Town Board appointee

JOHN SWICK, Dayton Town Board appointee

KEVIN KLINKER, Lafayette City Council Member

CLARK WHITLEY, Clarks Hill Board appointee

VICKI PEARL, Citizen appointee by County Commissioner

JAY SEEGER, APC Attorney

COUNTY COMMISSIONER, Ruth Shedd

MAYOR OF WEST LAFAYETTE MS. Jan Mills

COUNTY BUILDING COMMISSIONER, Ron Highland

WEST LAFAYETTE ENGINEER, David Buck

BALL LAW FIRM

STUART & BRANIGIN LAW FIRM

R W GROSS & ASSOCIATES

TIPPECANOE SHERIFF, Captain Rick Walker

TIPPECANOE SOIL & WATER CONSERVATION DISTRICT

LAURAMIE TOWNSHIP. Harold Tull

LAURAMIE TOWNSHIP TRUSTEE, Bill Easterbrook

WEA FIRE DEPARTMENT, Ed Evander, Chief

WEST LAFAYETTE POLICE DEPARTMENT, Mike Franci

Daniel Z.Blomeke Steve Clevenger Dan Teder WGLM, NEWS DIRECTOR JOURNAL AND COURIER, Max Showalter LAFAYETTE LEADER Newspaper WLFI TV, Gina Quatrocci PURDUE EXPONENT Newspaper

ADMINISTRATIVE COMMITTEE MAILING LIST

Mayor Jan Mills, City of West Lafayette

ALAN PLUNKETT, INDIANA DEPT. OF TRANSPORTATION

DAVID R. WILLIAMS, PRES. AREA PLAN COMMISSION

DANA SMITH, PRES. LAFAYETTE WEST LAFAYETTE CHAMBER OF COMMERCE

JON D FRICKER, CHAIRMAN, TECHNICAL TRANSPORTATION COMMITTEE

CINDY MURRAY, PRESIDENT, LAFAYETTE BOARD OF WORKS

MARTIN SENNETT, GLPTC

RUTH SHEDD, COUNTY COMMISSIONER

MR. DAVE BUCK, WEST LAFAYETTE CITY ENGINEER

OPAL KUHL, EXECUTIVE DIRECTOR, TIPPECANOE COUNTY HIGHWAY DEPARTMENT

MARK ALBERS, INDIANA DEPT. OF TRANSP.

DAVID FRANKLIN, FHWA

LAFAYETTE BUSINESS DIGEST

BETTY STANSBURY, PURDUE AIRPORT

K D BENSON, COUNTY COMMISSIONERS

JAY SEEGER, APC ATTORNEY

LARRY HEIL, FEDERAL HIGHWAY ADMINISTRATION

RON BRENKE, FEDERAL HIGHWAY ADMINISTRATION

JENNIFER BONNER, CITY ENGINEER

PERRY BROWN, PRES., LAFAYETTE CITY COUNCIL

DAVID BYERS, PRES., TIPPECANOE COUNTY COUNCIL

MAYOR TONY ROSWARSKI, CITY OF LAFAYETTE

DENNIS CARSON, DIRECTOR, LAFAYETTE COMMUNITY DEVELOPMENT DEPT.

ANN HUNT, PRES. WEST LAFAYETTE CITY

JOEL WRIGHT, CHAIRMAN OF GLPTC

JOHN KNOCHEL, COUNTY COMMISSIONER

RANDY WALTER, INDIANA DEPT OF TRANSPORTATION

CHRIS MORISSE, WLFI-TV 18

JOURNAL & COURIER, ATTN: DAN SHAW

JOURNAL & COURIER, ATTN: PHILLIP FLORINI

NEWS DIRECTOR WASK

MARGOT WALKER. NEWS DIRECTOR WKHY

DAVID BUNTE, WBAA RADIO

LAFAYETTE LEADER

WAZY NEWS DIRECTOR

APC TRANSPORTATION STUDY COMMITTEE MAILING LIST

JOHN KNOCHEL, County Commissioner Representative

MICHAEL D. SMITH, Lafayette City Council Appointed by the Mayor

CARL GRIFFIN, West Lafayette City Council Member

SCOTT MOLDEN, Clarks Hill Board appointee

AREA PLAN COMMISSION OF TIPPECANOE COUNTY CITIZEN PARTICIPATION COMMITTEE MINUTES

DATE	February 28, 2006
TIME	•
PLACE	Grand Prairie Room
	County Office Building

ATTENDEES NAME ORGANIZATION

Steve Clevenger Citizen

Pat Wilkerson Historic Jeff Neighborhood
Geneva Werner Vinton Neighborhood
Bill Easterbrook Lauramie Township
Pat Easterbrook Lauramie Township
Dan Shaw Journal & Courier

Gary Higgins Citizen

Curt Ashendel Bike-Pedestrian Committee

<u>STAFF</u> <u>TITLE</u>

John Thomas Assistant Director

Doug Poad Senior Planner-Transportation

I.

APPROVAL OF THE SEPTEMBER 27, 2005 MEETING MINUTES

Doug called the meeting to order and asked if there were any corrections needed to the minutes. Steve Clevenger said they looked alright. Geneva Werner said there was a typo on the last page where Paul asked about the cost of sidewalks. The tin should be when. The September 27, 2005 minutes were approved with corrections.

II.

FEEDBACK & DISCUSSION FROM GROUP REPRESENTATIVES:

Doug explained the draft Thoroughfare plan; what it contained and how it works.

Pat Wilkerson asked how often it is updated.

Doug said it hasn't been rewritten since the early 80's. It was amended many times taking into account new roads and developments. This is the first time that we have gone through the entire document and updated it cover to cover.

Geneva said it was interesting.

Doug said yes and added this was a project that Brian was working on. It is nearly finished and staff will be probably be getting back to it this summer and finishing it.

Curt Ashendel asked if comments from the working group were incorporated into the document.

Doug replied that they were.

Curt said what came out in those discussions effects mostly developments, especially in planned developments and subdivisions. It really doesn't impact the main roads so much. It influences the city and county designs when they upgrade roads and build them to these current standards.

John said the standards are really good standards.

Doug stated that we have copies in the office and it is also available on the APC web page.

Geneva asked if it was possible to purchase one of these.

Doug said they are free.

More discussion ensued about the sidewalks and there was additional discussion about bicycle paths and where they should be.

John stated that a bicycle and pedestrian plan would be adopted within the next year or so.

There was more discussions about bicycle lanes.

Doug introduced John Thomas as the new APC Assistant Director for Transportation.

III.

PROGRAM

2030 Transportation Plan – What's Your Vision

Doug distributed some handouts. He then stated that the members thoughts and ideas are really important in the process and will help guide our future. They will be included in our 2030 Transportation Plan. Because it takes so long to build and improve roads, we have to look out a significant number of years. Now we are jumping out to year 2030. Our 2025 plan was adopted in May 2001. Doug provided some additional background information and explained the maps that were handed out. We want to get your ideas and thoughts on where we need new or improvements to roads.

John stated that the one map shows building and demolition permits for dwelling units.

Geneva asked if it included all of Tippecanoe County.

Doug said yes.

More discussion ensued.

Doug presented and explained maps showing future growth in dwelling units and employment and explained them.

Curt stated that Meijers gave up their option for land on US 52 west.

Doug replied that they still own the property.

Doug went on to show where APC thought development will be occurring throughout the rest of the county. He explained how the projections were developed. He asked the members to look at the maps and asked for their ideas regarding growth and where improvements are needed.

Doug said there are a number of improvements proposed. The biggest projects are: the Hoosier Heartland; relocating US 231; major improvements to 231 S; SR 43 improvements from the interstate past the county line. He once again asked for the members thoughts and ideas on what to add and what to take out.

Bill Easterbrook said he would like to see one improvement: Stockwell Road. It has two extremely bad curves and it is impossible to see around the old buildings.

John asked if his suggestions included the curves in town.

Bill said that Stockwell is not a town. He stated that CR 700E is a highly traveled road. He added that there is between 1000 to 1500 persons from Montgomery County taking it each day to work.

Discussion followed.

Geneva asked if there were any thoughts of another east west corridor on the south side of Lafayette.

Doug stated that one was shown in the draft Thoroughfare Plan. He then stated that it is CR 600S and CR 550S.

Discussion followed including the suggestions to limit the access so it doesn't become another CR 350S

Bill stated that there is a severe problem on CR 900S going east out of Stockwell.

There are two sets of guardrails and at the second set, the little stream has eroded the bank past the guardrail. He added that Opal is working on it and a permit was needed from DNR and Fish and Wildlife. It is very dangerous.

Geneva asked why South 9th Street from Twyckenham Boulevard to 350 South is not four lanes.

Doug replied that the City has been planning to do it for some time, but it will be guite expensive.

Bill said another project he gets asked about is when INDOT will be building the bridge over the tracks on US 52.

Discussion followed regarding the bridges.

Doug followed up and stated that INDOT is buying the property needed for the project.

Curt asked if the Senate approves major moves, would there be more funding for the bridge.

Doug stated no.

Curt asked where will the money come from.

Doug replied that it will come from the gas you buy.

More discussion ensued.

Doug said SR 26 and US 52 is the busiest intersection in the entire county. One proposal was to put dual left turn lane in. Another would be to put all left turn lanes above the intersection. It would be a compact interchange.

Steve stated that it is a nightmare now.

Pat commented that there is congestion at 18th Street and Twyckenham. Twyckenham has four lanes and some day Brady will too. She asked why there is not an east – west left turn signal.

Doug said that he would ask the city engineer.

Bill asked if Brady was to be completed this year.

Doug replied that the City expects it to would be completed this year.

Gary Higgens stated that he did not know if this meeting was just for certain people.

Doug replied that it is open to the public.

Gary stated that he has a couple of items. He asked if staff has considered a connection from the Hoosier Heartland to SR 26.

Doug replied that that idea has been looked at and there are several problems. There are several subdivisions in the way. The other problem is the Wildcat Creek. It is a scenic stream and it is held to a much higher standard.

Gary asked what is the connector to SR 25 now?

Doug replied that they are either I-65 or CR 900E.

Gary added that he lives near Cracker Barrel, Frontage Road and the Wildcat Creek area. At the point where Frontage Road turns into CR 500N there is a bad curve and it is amazing that there hasn't been a serious fatality or head-on collision. At one place, there is a blind spot created by the hill and the road is just wide enough for 1 ½ cars. There are occasional joggers and bikers as well.

Discussion followed.

Steve said he has some concerns especially with the growth north of West Lafayette and at the Salisbury and US 52 intersection. He asked if there are any plans to widen the road. He also stated that there is probably plenty of room north of 52 to widen it, but all that traffic has to go somewhere. Most of the people are heading toward Purdue. He stated that since SR 43 is a scenic route, it will probably not be improved and there are no other routes to get to Purdue besides taking 231 or side streets.

Discussion followed including: US 52 in West Lafayette turning into another SR 26, improving Soldiers Home Road, lane configuration on Salisbury, how long traffic backs up on Salisbury at 5:00, synchronizing the signals and the possibility of additional traffic signals on 52.

Steve stated that he did not see any reason why INDOT did not install the signal at the Menards driveway. INDOT knows they are going to have to put it in.

Doug replied INDOT wanted to see what will happen at CR 300W and if people will the use the traffic signal at the county road.

Steve asked if the State will require Menards to pay for the new signal.

Doug replied that INDOT can and Menards has agreed to pay for it when it is installed.

Doug added that eventually a frontage road will be built between Menards and Meijer and right now only a part of it is in. The County also plans to improve CR 300 W north of US 52.

Geneva asked when the Meijers store will be built.

Doug replied that they may build within two years especially since Menards is now there.

Discussion then focused on all of the growth and new development that was going on near the State Park.

Steve said another place of concern is the future 231 and 52 intersection. The interchange in not immediately needed but can INDOT reserve enough land to eventually put one in. It will be eventually needed.

John said that is a sensitive word for INDOT. They do some protective buying on occasion.

Steve said that one hotspot is US 52 where it joins in with Northwestern. It is a mess. Traffic is crossing the lanes and also backing up. Some type of improvement is needed.

John said that APC and West Lafayette have had discussion with INDOT about that location.

Doug thanked everyone for their comments and input. He said he would definitely pass them onto the appropriate agencies and make them aware of their comments and thoughts. The next step is taking all of the comments from the different meetings and putting them together. We have already assigned dollar amounts to included projects and we are also looking at what we can and can not build. We will be working on the document and present it at another meeting. We will definitely get it done in May.

Steve said he had one more comment: finish the widening of Kalberer Road near Morehouse Road and then do something to Morehouse between Kalberer and 52. The improvements are not needed right now, but something on Morehouse will be have to be done sometime soon.

Doug asked if there were two requests: improve Kalberer and improve Morehouse between Kalberer and 52.

Steve said Morehouse needs to be done first, but both projects may need to be done at the same time.

Bill suggested that Morehouse needs to be improved all the way up to the curve. It really has a lot of traffic on it.

Steve said he knows the city has plans to improve CR 150W behind the Hadley Moore subdivision.

Doug said they are calling that Yeager Road for now. The improvements included straightening the curves.

SR 25 Crash Report

John presented the SR 25 crash report. He said this was one of the reports Brian was working on. He was looking at traffic accidents on SR 25 between I-65 and the County Line for a two year period between 2003 and 2004. A summary was passed out. John stated that the Sheriffs department requested the review. John then reviewed the three maps and highlighted the various clusters of accidents.

John then reviewed the various accident characteristics. Over the two year period there were just over 200 accidents and the vast majority of them were single vehicle crashes. There was one fatality. The highest frequency occurred in November and December and on Thursday, Friday and Saturday.

Steve asked it the reports state whether it was a deer or some other object in the road.

Doug replied that we copied the reports and can easily check.

Curt said that if it really is what is says, he guessed the locations are somewhat random except for the animals jumping across the road when there are woods on both sides.

John stated that a vast majority of the crashes happened when it was clear and dry. He added that this information was provided to all of the local police departments.

Geneva said it would be interesting to do a report for SR 26 and US 52. There would be a lot more red dots.

Doug replied that there are usually 60 to 80 crashes at that intersection each year.

Geneva commented on the crashes at 18th and Teal.

Discussion then focused on I-65. Doug stated that the stretch from Indianapolis to Chicago is the worst interstate in regard to crashes and fatalities. He added that there are a lot of crossover head on crashes. INDOT is responding by installing the posts and cables. Discussion continued.

Geneva then went back to the future dwelling map and stated that 6,700 lots are available for building permits. She asked what was special about the additional 3,700 lots.

Doug replied that those lots have received preliminary approval and had not yet been finalized.

More discussion ensued.

Steve asked how we came up with the population estimate for 2030.

Doug stated that in 2003 the Census estimated that we had 154,848 persons in Tippecanoe County. By 2030 we foresee us growing to 216,832. That's almost 62,000 persons in the 27 years.

Steve stated that was a growth rate of about 27%.

Doug replied that that was a lot.

Geneva mentioned home foreclosures and discussion followed.

IV.

QUESTIONS, COMMENTS, OR SUGGESTIONS

Doug thanked everyone for coming. He asked if anyone had some thoughts on how to attract more people to the meetings.

Geneva said the city has a list of neighborhood organizations.

Doug replied that notices are sent to approximately a dozen or so neighborhoods.

Curt suggested that the County's IT department could setup an email list.

Doug replied that we do not have e-mail addresses.

More discussion ensued about e-mail and ways to get people to come.

Steve suggested contacting the organizations that aren't coming and see if there is anyone interested in attending.

John asked if we had everyone's e-mail address.

Bill said can we send everybody a letter asking for their e-mail address.

Doug said that was a good idea.

V. ADJOURNMENT

Meeting adjourned.

The next meeting is scheduled for March 28, 2006.

Louda Jomen

Respectfully submitted,

Linda Toman-Wilson

Bookkeeper/Secretary

Reviewed by,

Doug Poad

Senior Planner - Transportation

Comments and Suggestions CPC Meeting February 28, 2006

- Improvements are needed on CR 700E, both north of Stockwell and in Stockwell. The curves need to be addressed.
- 2) Develop another east/west connector on the south side of Lafayette.
- 3) CR 800S is a beautiful road. It is in much better shape than SR 28.
- 4) CR 900S near Stockwell. The bank is eroding and has eroded past the guard rail. *This problem is currently being looked at by the County Highway Department.*
- 5) South 9th from Twyckenham to CR 350S. It needs to be widened to four lanes.
- 6) The new bridge on US 52 over the Norfolk Southern Railroad is desperately needed.
- 7) The intersection of US 52 and SR 26. Extensive discussion occurred and the only suggestion provided was a possible roundabout.
- 8) Twyckenham and Brady Lane at 18th Street. Will a left turn signal be installed for Twyckenham and Brady? *It is needed*.
- 9) Is it possible to construction an outer connection or belt between SR 25, SR 26 and US 52 on the east side of the County?
- 10) The curve located at the point where Frontage Road turns into CR 100N is dangerous. The curve is blind and there is no place for anyone to go due to the relative close location of the bank to the road.
- 11) Improvements are needed at Salisbury and US 52. While the congestion maybe tolerable now, it will only get worse in the future due to the expected growth in housing. Cars are stacking well beyond the waiting areas now.
- 12) Improvements are needed to Soldiers Home Road.
- 13) The traffic lights on US 52 in West Lafayette need to be synchronized.
- 14) The driveway at US 52 and the new Menards store is dangerous. The traffic signal needs to be installed and there needs to be a left turn lane for east bound traffic. Cars wanting to turn left are currently stopping in the passing lane.
- 15) The state district office needs a "1-800" phone number.
- 16) There will probably be more growth around Stockwell due to the new sewer system. It has the additional capacity.
- 17) Can additional property at the US 52 and future US 231 intersection be purchased to construct an interchange when it is needed?
- 18) A project is needed on US 52 between Cumberland and Northwestern. The problem with merging and weaving vehicles is severe.
- 19) Kalberer near Morehouse Road needs widened to match the recent improvements to the east.
- 20) Future improvements are needed to Morehouse Road from US 52 to the curve north of Kalberer. While Morehouse handles most of the traffic now, this area is projected to see a lot of residential growth and Morehouse will not be able to handle it.

AREA PLAN COMMISSION OF TIPPECANOE COUNTY CITIZEN PARTICIPATION COMMITTEE MINUTES

DATE	September 27, 2005
TIME	
PLACE	
	County Office Building

ATTENDEES NAME ORGANIZATION

Steve Clevenger Citizen
Paul Slavens Citizen
Gina Quattrocchi WLFI
Nathan Caldwell WLFI

<u>STAFF</u> <u>TITLE</u>

Doug Poad Senior Planner-Transportation
Brian Webber Transportation Planner

I. APPROVAL OF THE JULY 26, 2005 MEETING MINUTES

Doug Poad called the meeting to order. The July 26, 2005 minutes were approved as distributed.

II. FEEDBACK & DISCUSSION FROM GROUP REPRESENTATIVES:

Doug reviewed the topics and discussion that occurred during the July meeting. He asked if there were any comments or questions regarding the presentations last month.

Steve Clevenger asked if he had taken the Hot Spot list to the INDOT meeting.

Doug said that he did bring it to the meeting and hand delivered it to the District Director. In addition, copies were given to most of his staff. Regarding the meeting, its focus was on this 10-year program. The list was discussed last Friday during a district meeting. INDOT staff looked at the list and said that they would have the traffic division investigate them. There were a couple of items that our office or a government agency will have to formally request. Examples were given.

The County Highway Department looked over list. Discussion followed.

III. PROGRAM

Draft Thoroughfare Plan

Brian Weber presented the draft Thoroughfare Plan. He described what it was and what it was used for. He reviewed a list of questions that were previously asked. He further explained what the Plan does for traffic and transportation. He explained the maps shown in the report and what they meant. He asked if all of the members could help and gave them the contact information.

Paul Slavens asked how they determine who follows these standards.

Doug stated everyone has to follow these standards.

Steve stated that he thought there should be a companion amendment to subdivision ordinance.

Brian said that Don would be working on that.

Steve said the minor vs. major collector should be prioritized when someone is putting it in a development.

Brian stated he thought the designation of the minor collector was at the discretion of the developer.

Discussion Followed.

Steve asked how does the new right-of-way standards compare to the current Thoroughfare Plan and the Subdivision Ordinance.

Brian said that in most cases they are about the same.

Paul asked if most people were required to follow these standards.

Doug said after the Plan is adopted everyone would have to follow these standards.

Steve asked what time frame do you to want get information back.

Brian stated that the draft plan was presented to the stakeholders. They were given a month to respond. **Brian** added he would like to have the committees' responses back by October 17th. The draft Plan would then be presented to the Technical Transportation Committee in November and Administrative Committee in December.

Paul asked how much right-of-way does the county get?

Brian stated it depends on whether it is a collector or local road.

Doug said the standards are listed under which classification the road is listed. Several examples were given.

Steve said could you describe a local residential road, urban front section 25' pavement width is actually 30' back to back.

Steve asked if any of the turn a rounds or radius changed.

Brian said they did slightly. An additional requirement was added and it stated that if a road is beyond a certain length, the turn a round has to be larger to accommodate school buses. If they are not, the buses would not be able to go down that road.

Steve asked if there were standards for allies.

Brian stated a table was placed in the appendix that lists all of the roads that have a county designation other than local roads. They are in alphabetical order.

2030 Transportation Plan

Doug gave a presentation regarding the 2030 Transportation Plan. This Plan is required to be updated every five years. He explained how it is put together. He handed out maps and explained them. He stated that we needed to look at other improvements besides road. He gave a few examples and said he wanted the committees' thoughts.

Paul asked what efforts do police use in enforcing speed limits.

Doug said he thinks they do the best they can. Speeding has not been addressed in previous longrange plan updates.

Paul stated he saw people stopped on Kalberer for speeding.

Doug asked if we need to include raising speed limits.

Steve stated he would like Lindberg Road to be fixed and the speed limit be raised.

There was more discussion regarding Lindberg Road.

Gina Quattrocchi asked what happens with the 2030 Plan? What's next?

Doug said most of the areas that are congested were pickup in the last transportation plan. A lot of steps have been taken to try and alleviate those problems. A few examples were given.

Steve stated that there has been discussion regarding rail, the airport, and high speed rail. He added that he did not know if the current transportation bill has anything in it regarding high speed rail.

Doug said that the 2025 Plan did mention it. The new Plan will probably mention it again.

There was more discussion on this.

Steve stated that Purdue Airport is another topic. He added that we don't have a major carrier.

Nathan Caldwell stated that congestion is not as bad here when you compare it to bigger cities.

Steve said that one big problem is the lack of sidewalks when you are going from rural to urban cross sections.

Doug gave an example of one of the problems, South 18th Street by the radio station.

The developer built a path from the subdivision to CR 430S. CR 430S has a sidewalk.

Steve said that the urban roads that already have curb and gutter needs sidewalks if none are there.

Paul said he didn't realize that there was a lot of traffic on 600N.

Doug said there is a lot of traffic coming in the morning and the evening.

Paul added that there is a lot of truck traffic on SR 43.

Doug said there needs to be something done in Brookston, but it is outside our area.

Paul asked if the new SR 25 would be limited access.

Doug replied that it would be. It would like 231 and access would on be from the county roads. Many of the county roads will be bridged over the railroads and the new road.

Steve said if there was any discussion about putting another rail in at some point.

Doug stated they are not that far yet.

Paul asked if the Hoosier Heartland would parallel the railroad tracks.

Doug stated yes it would.

Paul asked how much more does it cost for sidewalks tin constructing the road.

Doug said that it depends on the length.

Paul asked it the president has signed a new transportation bill.

Doug replied that it was signed by the President.

There was more discussion.

Steve asked if the Purdue Plan is going to be started earlier than expected.

Doug stated that it probably will be and gave additional details.

Paul stated Mitch had an ambitious plan.

Doug stated yes. He further added that all of the projects in our area made the cut and they would be funded.

Paul stated that there is a nice white fence at the corner of Kalberer and Solders Home, but it did make it difficult to see sometimes.

More discussion followed.

IV. QUESTIONS, COMMENTS, OR SUGGESTIONS

Doug thanked everyone for coming.

Londa Jomen

V. ADJOURNMENT

Meeting adjourned.

The next meeting is scheduled for November 29, 2005.

Respectfully submitted.

Linda Toman

Bookkeeper/Secretary

Reviewed by,

Doug Poad

Senior Planner - Transportation

Resolution T-06-5

A RESOLUTION TO ADOPT THE TRANSPORTATION PLAN FOR 2030 AS AN AMENDMENT TO THE COMPREHENSIVE PLAN FOR TIPPECANOE COUNTY

WHEREAS, the Area Plan Commission of Tippecanoe County (APC) is the authorized and responsible Metropolitan Planning Organization (MPO) for the Greater Lafayette Area Transportation and Development Study, and

WHEREAS, Congress has required through the Transportation Efficiency Act for the 21st Century that all MPO's adopt comprehensive transportation plans with a twenty year horizon, and

WHEREAS, the MPO staff has worked with the Citizens Participation, Technical Transportation, APC Transportation Study, and the Administrative Committees to develop and review the draft plan, and

WHEREAS, an open comment period has been available since February, 2006 where staff has actively solicited input from the public, that time period exceeding the 45 days prior to this meeting, which culminated in the Citizens Participation Committee holding a public hearing on the Plan on May 9, 2006, and

WHEREAS, the Transportation Plan for 2030 was recommended for adoption to the Area Plan Commission by the Technical Transportation Committee on May 17, 2006 and by the Administrative Committee on May 3, 2006:

NOW THEREFORE BE IT RESOLVED that the Area Plan Commission of Tippecanoe County as the designated Metropolitan Planning Organization for the Greater Lafayette Area Transportation and Development Study,

Does hereby adopt, on this 17th day of May, 2006, the attached *Transportation Plan for 2030* as an amendment to the *Comprehensive Plan for Tippecanoe County*.

Sayh. Thurch President

RESOLUTION-T-07-04

PROPOSED AMENDMENTS TO THE

TRANSPORTATION PLAN FOR 2030

STAFF REPORT May 31, 2007

Staff Report

Proposed Amendments to the *Transportation Plan for 2030*

Area Plan Commission Executive Committee

June 6, 2007

BACKGROUND:

SAFETEA-LU, the federal regulations governing our transportation planning program, requires us to make modifications to the *Transportation Plan for 2030* as well as the *Transportation Improvement Program*. The attached proposed amendments are a list of changes (additions and modifications) that are recommended for incorporation into the Transportation Plan to meet the new requirements. The amendments provide additional documentation on:

- -Goals and objectives,
- -Safety and security issues,
- -Fiscal responsibility.
- -Potential environment impacts, and
- -Operation and management strategies used by the community.

All of the goals and objectives from the *Comprehensive Plan for Tippecanoe County* as well as our *Bicycle and Pedestrian Plan* are now incorporated to provide a more comprehensive perspective of the driving principles for the transportation planning process (amendment #3). One new objective was added to an environmental goal to document the community's policy level approach to environmental impacts (amendment #4). The plan also now includes the goals and objectives from Indiana's Strategic Highway Safety Plan (amendment #14).

Separate Safety and Security planning factors have been created that reflect their new importance in SAFETEA-LU (amendments #1, 5, and 6). Our transportation planning process has a long history of being proactive in the area of safety as evidenced by our crash data analysis and successful funding of safety projects. Additionally, there is now a discussion of CityBus safety and security programs and our cooperation with the Tippecanoe Emergency Management Agency.

The Plan's discussion of how this community operates and manages our transportation system has been expanded to provide more information on the management systems the community uses to preserve our highways, bridges and transit system (amendments #8, 9, and 12).

A significant addition to the Plan starts to address the broader policy and strategy issues of its environmental implications. Not only has an additional environmental objective been added, but extensive analyses of general environmental issues associated with projects contained in the Plan are now documented. The distribution of this plan will open discussions with State and federal agencies that have an interest in historic, natural resource, land management, and environmental quality.

A paragraph has been added that discusses how APC currently uses graphics and visualization techniques to communicate to the public. It also describes how we want to accomplish that in the future and commits APC to expanding our visual communication techniques to include greater use of technology.

SAFETEA-LU requires that cost estimates for highway projects using federal financial assistance reflect year-of-construction costs and be consistent with (within 10%) what this community could expect to receive in federal assistance. Revisions have been made to the list of projects on Table 4 adjusting their cost to the year they will be constructed. The methodology used to adjust the costs comes from INDOT with slight modifications. The project list was modified by the Technical Committee last month so total costs are reasonably consistent with expected federal funding through 2030 (amendments #4 and 11). At the direction of the Technical Committee, Table 3 (attached to this staff report) will also be modified to reflect year-of-construction costs, and the updated table will be distributed at the Executive Committee meeting.

All substantive changes are noted in this proposed amendment. There are, however, some minor wording changes that are not included here. A copy of the Proposed Amendments, as well as the full copy of the Proposed Amended Transportation Plan for 2030, incorporating the amendments listed here, is available at the APC web site (www.tippecanoe.in.gov/apc). The current *Transportation Plan for 2030* is also available at the site.

Staff designed these amendments to address the requirements of SAFETEA-LU. The Plan was reviewed by the Technical and Citizen Committees on the 22nd of May. Both recommended that the APC adopt the amendments. The Administrative Committee is scheduled to consider it at its meeting on the 30th of May; that committee's recommendation will be provided at the Executive Committee meeting.

STAFF RECOMMENDATION:

Approve the Resolution T-07-04 to amend the Transportation Plan for 2030.

Resolution T-07-04

RESOLUTION TO AMEND THE TRANSPORTATION PLAN FOR 2030

- WHEREAS, the Executive Committee of the Area Plan Commission of Tippecanoe County, acting as the Metropolitan Planning Organization, is responsible for transportation planning in Tippecanoe County; and
- WHEREAS, the Executive Committee of the Area Plan Commission of Tippecanoe County, acting as the Metropolitan Planning Organization, is responsible for developing and maintaining the long range transportation plan; and
- WHEREAS, the Executive Committee of the Area Plan Commission of Tippecanoe County is authorized to act on the *Transportation Plan for 2030*; and
- WHEREAS, the Metropolitan Planning Organization staff has worked with the Technical, Citizen, and Administrative Committees to develop the amendments to the *Transportation Plan for 2030* to bring it into compliance with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A legacy for Users; and
- WHEREAS, the Technical Transportation Committee reviewed the proposed amendments at its May 22, 2007 meeting and recommended the Executive Committee of the Area Plan Commission adopt the amendments to the *Transportation Plan for 2030*, and
- WHEREAS, the Citizen Participation Committee reviewed the proposed amendments at its May 22, 2007 meeting and recommended the Executive Committee of the Area Plan Commission adopt the amendments to the *Transportation Plan for 2030*, and
- WHEREAS, the Administrative Committee reviewed the proposed amendments at its May 30, 2007 meeting and recommended the Executive Committee of the Area Plan Commission adopt the amendments to the *Transportation Plan for 2030*.
- NOW THEREFORE BE IN RESOLVED, that the Executive Committee of the Area Plan Commission of Tippecanoe County, as the designated Metropolitan Planning Organization, does hereby adopt the amendments and incorporates them into the Transportation Plan for 2030.

Adopted on Wednesday, the 6th of June, 2007.

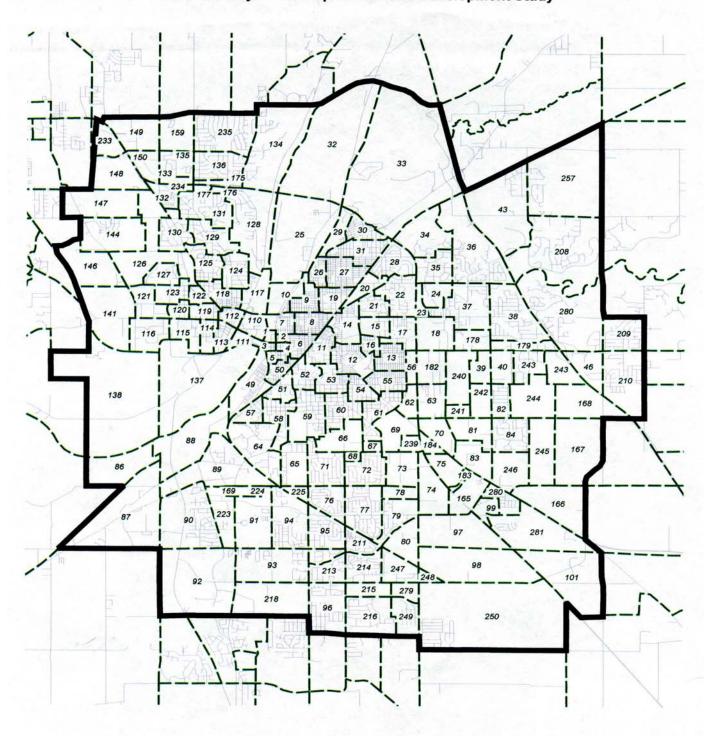
President, APC David R. Williams

/ Secretary Sallie Dell Fahey

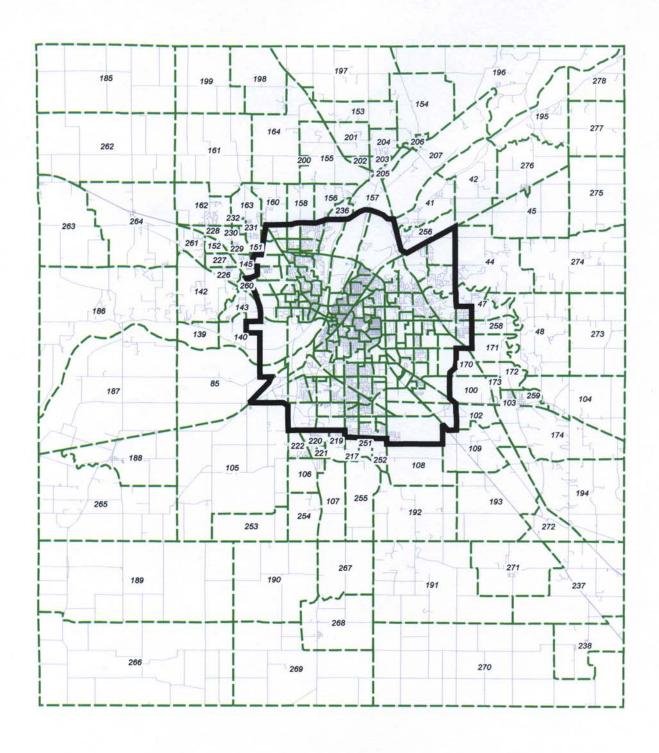
Appendix 6

Traffic Zones

Urban Traffic Zone Map
Greater Lafayette Transportation and Development Study



Rural Traffic Zone Map Greater Lafayette Transportation and Development Study



Appendix 7

Detailed Socioeconomic Data

Socioeconomic Data for 2003

Traffic	Po	pulation		Dwelling	g Units	Vehicles		Employment	
Zana	Hausahalda	Group	Total	Occupied	Total	Available	Deteil	Non Botoil	Total
Zone	Households	Quarters	Total 8	Occupied 6	Total 6	Available 5	Retail 0	Non-Retail 166	Total
1 2	8 208		208	154	165	123	48	594	166 642
3	206 15		206 15	11	103	9	90	865	955
	159		159	85	95	99	90 78	1309	1387
4									
5	133	50	133	59	63	69	30	325	355
6	689	56	745	350	392	383	277	1679	1956
7	379	31	410	232	264	235	63	512	575
8	1,044	21	1065	589	632	673	42	363	405
9	1,140		1140	492	560	689	12	55 40 . 7	67
10	224	00	224	98	104	164	77	487	564
11	959	32	991	473	524	652	24	201	225
12	1,050		1050	478	505	711	100	324	424
13	973		973	459	483	611	25	85	110
14	461	142	603	248	270	312	12	240	252
15	416		416	224	246	260	0	408	408
16	102	96	198	57	59	78	11	2233	2244
17	381		381	216	237	317	565	861	1426
18	20		20	13	14	15	719	1626	2345
19	593	132	725	204	219	249	90	1695	1785
20	77		77	35	37	55	605	1226	1831
21	660		660	277	295	472	0	24	24
22	961		961	429	457	748	46	134	180
23	0		0	0	0	0	115	111	226
24	0		0	0	0	0	0	40	40
25	544		544	271	289	339	42	732	774
26	564	232	796	217	227	424	3	60	63
27	1,346		1346	598	626	1048	29	418	447
28	1,326		1326	561	583	901	67	189	256
29	201		201	100	107	133	40	211	251
30	501		501	231	246	307	37	49	86
31	1,184	2	1186	561	588	901	28	66	94
32	13	130	143	7	7	14	12	684	696
33	81		81	33	34	66	15	268	283
34	179		179	82	85	170	55	407	462
35	341		341	149	154	323	71	15	86
36	1,592		1592	687	739	1259	9	39	48
37	2,253		2253	798	811	1235	7	133	140
38	1,075		1075	505	541	940	8	59	67
39	0		0	0	0	0	0	0	0
40	96		96	33	34	57	571	271	842
41	970		970	383	392	883	0	30	30
42	412		412	155	161	359	5	46	51
43	576		576	214	222	449	5	83	88
44	821		821	305	319	701	12	74	86
45	177		177	89	91	192	0	13	13
46	0		0	0	0	0	621	285	906
47	628		628	242	253	556	0	36	36
48	636		636	243	249	558	8	27	35
.0				0			-		

	Traffic	Po	opulation		Dwelling	g Units	Vehicles		Employment	
50 671 671 325 350 458 40 82 122 51 588 588 244 264 431 0 63 63 52 678 678 365 389 486 2 163 165 53 811 811 373 397 566 36 75 111 24 135 54 719 719 303 317 573 11 124 135 55 1,061 28 1089 440 463 703 27 72 99 56 0 0 0 0 286 352 638 57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 461 1183 577 603 813 1	Zone	Households		Total	Occupied	Total	Available	Retail	Non-Retail	Total
51 588 588 244 264 431 0 63 63 52 678 678 365 389 486 2 163 165 53 811 811 373 397 566 36 75 111 54 719 719 303 317 573 11 124 135 55 1,061 28 1089 440 463 703 27 72 99 56 0 0 0 0 0 286 352 638 57 480 480 209 221 365 0 2 2 2 58 817 817 387 419 755 22 67 89 59 991 981 481 331 0 121 121 121 60 1,69 14 1183 577 603 313 1 <td>49</td> <td>337</td> <td></td> <td>337</td> <td>159</td> <td>171</td> <td>210</td> <td>35</td> <td>455</td> <td>490</td>	49	337		337	159	171	210	35	455	490
52 678 678 365 389 486 2 163 165 53 811 811 373 397 566 36 75 111 54 719 719 303 317 573 11 124 135 55 1,061 28 1089 440 463 703 27 72 99 56 0 0 0 0 0 2266 352 638 57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 191 463 481 331 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526	50	671		671	325	350	458	40	82	122
533 811 8111 373 397 566 36 75 111 54 719 719 303 317 573 36 72 72 99 56 0 0 0 0 0 266 352 638 55 1.061 28 1089 440 463 703 27 72 99 56 0 0 0 0 0 266 352 638 61 14 1817 387 419 755 22 67 89 59 991 463 481 831 0 121 121 120 120 60 1813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 3539 63 166 166 107 115 122 288 391 679 64 1,265 142 1397 546 580 952 24 <td>51</td> <td>588</td> <td></td> <td>588</td> <td>244</td> <td>264</td> <td>431</td> <td>0</td> <td>63</td> <td>63</td>	51	588		588	244	264	431	0	63	63
54 719 719 303 317 573 11 124 135 55 1,061 28 1089 440 463 703 27 72 99 56 0 0 0 0 226 352 638 57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 991 463 481 831 0 121 121 121 60 1,169 14 1183 577 603 813 1 29 30 121 </td <td>52</td> <td>678</td> <td></td> <td>678</td> <td>365</td> <td>389</td> <td>486</td> <td>2</td> <td>163</td> <td>165</td>	52	678		678	365	389	486	2	163	165
555 1,061 28 1089 440 463 703 27 72 99 56 0 0 0 0 0 286 352 638 57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 463 481 831 1 29 30 61 1074 13 1087 523 547 747 85 118 203 61 1074 13 1087 523 547 747 85 118 220 30 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 163 193	53	811		811	373	397	566	36	75	111
56 0 0 0 0 0 286 352 638 57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 991 463 481 831 0 121 121 60 1,169 14 1183 577 603 813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 3539 63 186 166 107 115 122 288 391 679 67 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296	54	719		719	303	317	573	11	124	135
57 480 480 209 221 365 0 2 2 58 817 817 387 419 755 22 67 89 59 991 991 463 481 831 0 121 121 60 1,169 14 1183 577 603 813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0	55	1,061	28	1089	440	463	703	27	72	99
58 817 817 387 419 755 22 67 89 59 991 463 481 831 0 121 121 60 1,169 14 1183 577 603 813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 0 0 381	56	0		0	0	0	0	286	352	638
59 991 991 463 481 831 0 121 121 60 1,169 14 1183 577 603 813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 </td <td>57</td> <td>480</td> <td></td> <td>480</td> <td>209</td> <td>221</td> <td>365</td> <td>0</td> <td>2</td> <td>2</td>	57	480		480	209	221	365	0	2	2
60 1,169 14 1183 577 603 813 1 29 30 61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 381 134 515 68 145 148 86 76 707 872 1579 71 1,484 1484 1484 56 707 872 1579	58	817		817	387	419	755	22	67	89
61 1074 13 1087 523 547 747 85 118 203 62 0 0 0 0 0 13 3526 35393 63 166 1166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 1	59	991		991	463	481	831	0	121	121
62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 <	60	1,169	14	1183	577	603	813		29	30
62 0 0 0 0 0 13 3526 3539 63 166 166 107 115 122 288 391 679 64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 545 67 0 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 <	61	1074	13	1087	523	547	747	85	118	203
64 1,255 142 1397 546 580 952 24 199 223 65 418 418 183 193 296 0 97 97 66 52 52 22 23 24 35 0 544 544 67 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 216 880 1096	62	0		0	0	0	0	13	3526	3539
65 418 418 183 193 296 0 97 97 66 52 52 23 24 35 0 544 544 67 0 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 1994 76 2070 74 6 6 3 3 8 236 1362 1598 75 <td>63</td> <td>166</td> <td></td> <td>166</td> <td>107</td> <td>115</td> <td>122</td> <td>288</td> <td></td> <td></td>	63	166		166	107	115	122	288		
66 52 52 23 24 35 0 544 544 67 0 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 1994 76 2070 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 0 9 87 77 2,023	64	1,255	142	1397	546	580	952	24	199	223
66 52 52 23 24 35 0 544 544 67 0 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 1994 76 2070 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 1994 76 2070 76	65	418		418	183	193	296	0	97	97
67 0 0 0 0 381 134 515 68 145 145 80 84 144 21 251 272 69 5 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 </td <td>66</td> <td>52</td> <td></td> <td>52</td> <td>23</td> <td>24</td> <td>35</td> <td></td> <td>544</td> <td>544</td>	66	52		52	23	24	35		544	544
68 145 145 80 84 144 21 251 272 69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 216 880 1096 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101	67	0		0	0	0		381	134	515
69 5 5 2 2 3 30 1296 1326 70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 19 73 0 0 0 0 0 216 880 1096 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 425 425 <td< td=""><td>68</td><td>145</td><td></td><td>145</td><td>80</td><td>84</td><td>144</td><td></td><td></td><td></td></td<>	68	145		145	80	84	144			
70 96 96 45 48 56 707 872 1579 71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 216 880 1096 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80							3			
71 1,484 1484 700 724 1090 93 74 167 72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 216 880 1096 74 6 6 6 3 3 8 236 1362 1598 75 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 24 395 419 81				96				707		
72 1,788 1788 736 774 1291 0 19 19 73 0 0 0 0 0 216 880 1096 74 6 6 6 3 3 8 236 1362 1598 75 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 </td <td></td>										
73 0 0 0 0 0 216 880 1096 74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 332 339 575 45 126 171 83 1,160 <td>72</td> <td></td> <td></td> <td>1788</td> <td></td> <td></td> <td></td> <td></td> <td>19</td> <td></td>	72			1788					19	
74 6 6 3 3 8 236 1362 1598 75 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84	73					0		216		
75 0 0 0 0 1994 76 2070 76 1,264 1264 471 482 1002 0 87 87 77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85<	74	6					8	236	1362	1598
77 2,023 2023 836 862 1392 37 64 101 78 0 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219	75	0			0	0	0	1994	76	2070
78 0 0 0 0 0 425 425 79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 1 86 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 <t< td=""><td>76</td><td>1,264</td><td></td><td>1264</td><td>471</td><td>482</td><td>1002</td><td>0</td><td>87</td><td>87</td></t<>	76	1,264		1264	471	482	1002	0	87	87
79 1,705 1705 942 1148 1401 15 26 41 80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113	77	2,023		2023	836	862	1392	37	64	101
80 0 0 0 0 0 24 395 419 81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 1 86 0 0 0 0 0 1219 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652	78	0		0	0	0	0	0	425	425
81 10 10 5 5 6 519 479 998 82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71	79	1,705		1705	942	1148	1401	15	26	41
82 962 962 332 339 575 45 126 171 83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28	80	0		0	0	0	0	24	395	419
83 1,160 1160 545 576 677 82 101 183 84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 </td <td>81</td> <td>10</td> <td></td> <td>10</td> <td>5</td> <td>5</td> <td>6</td> <td>519</td> <td>479</td> <td>998</td>	81	10		10	5	5	6	519	479	998
84 1,253 1253 668 725 1014 132 223 355 85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61	82	962		962	332	339	575	45	126	171
85 144 144 58 62 117 0 1 1 86 0 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95	83	1,160		1160	545	576	677	82	101	183
86 0 0 0 0 0 1219 1219 87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901	84	1,253		1253	668	725	1014	132	223	355
87 435 435 184 218 462 0 35 35 88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 239 108 113 201 0 2 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	85	144		144	58	62	117	0	1	1
88 63 63 28 30 83 0 113 113 89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	86	0		0	0	0	0	0	1219	1219
89 1,156 1156 505 529 647 367 285 652 90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	87	435		435	184	218	462	0	35	35
90 2,245 2245 883 926 1236 0 71 71 91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	88	63		63	28	30	83	0	113	113
91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	89	1,156		1156	505	529	647	367	285	652
91 518 518 221 237 436 0 28 28 92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	90				883	926	1236			
92 239 108 113 201 0 2 2 93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	91	518		518	221	237	436		28	28
93 738 738 305 327 649 0 61 61 94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70		239		239		113	201			
94 1,978 1978 886 919 1371 55 147 202 95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	93	738		738	305		649		61	
95 1,032 1032 403 415 786 0 14 14 96 901 901 395 411 669 14 56 70	94	1,978		1978	886	919	1371	55	147	202
96 901 901 395 411 669 14 56 70	95						786			
	96			901	395	411	669	14	56	
	97	21		21	8	9	16	71	571	642

Traffic	Po	opulation		Dwelling	g Units	Vehicles		Employment	
Zone	Households	Group Quarters	Total	Occupied	Total	Available	Retail	Non-Retail	Total
98	3		3	1	1	2	0	757	757
99	2		2	1	1	1	13	485	498
100	0		0	0	0	0	0	3222	3222
101	62		62	23	24	39	0	304	304
102	56		56	20	21	66	0	30	30
103	653		653	232	246	556	13	72	85
104	477		477	159	164	366	0	0	0
105	1,025		1025	363	384	823	45	102	147
106	918		918	356	363	870	0	30	30
107	120		120	44	45	95	0	15	15
108	156		156	57	58	127	0	1	1
109	144		144	77	82	200	0	89	89
110	702		702	242	246	596	643	145	788
111	513		513	243	246	718	136	69	205
112	1,123	217	1340	501	533	1076	230	161	391
113	2,487	27	2514	1205	1220	1935	125	349	474
114	591	1,223	1814	289	291	928	158	1900	2058
115	2	•	2	1	1	2	0	3544	3544
116	2,185		2185	1026	1056	1166	0	228	228
117	1,540	48	1588	778	801	1020	0	12	12
118	2,274	174	2448	901	959	1687	122	186	308
119	155	177	332	68	70	99	99	5108	5207
120	574	1,442	2016	230	237	594	0	471	471
121	0	4,595	4595	0	0	1263	218	973	1191
122	0	,,,,,,	0	0	0	0	69	3875	3944
123	265	3,787	4052	106	109	924	0	573	573
124	1,007	-, -	1007	459	473	850	15	97	112
125	799	42	841	324	336	629	94	290	384
126	12		12	6	6	11	0	509	509
127	708	1,556	2264	372	376	1777	0	270	270
128	769	,	769	404	417	740	0	30	30
129	529		529	233	251	432	0	58	58
130	593		593	301	310	531	46	37	83
131	940		940	414	427	767	5	259	264
132	987		987	588	609	660	40	70	110
133	0		0	0	0	0	387	214	601
134	1,019	340	1359	327	333	715	0	418	418
135	1,484	215	1699	662	691	939	8	290	298
136	1,600		1600	711	733	1464	7	12	19
137	15		15	6	6	8	0	175	175
138	14		14	7	7	14	0	448	448
139	178		178	, 71	, 75	151	0	0	0
140	208		208	102	107	207	12	19	31
141	51		51	20	23	44	9	3	12
142	442		442	198	208	388	24	29	53
143	247		247	110	116	188	0	16	16
144	634		634	313	322	565	0	0	0
144	540		540	225	253	381	0	1	1
145	44		44	225 17	255 19	37	0	0	0
140	44		44	17	19	31	U	U	U

Traffic	Po	pulation		Dwelling	g Units	Vehicles		Employment	
Zone	Households	Group Quarters	Total	Occupied	Total	Available	Retail	Non-Retail	Total
147	960		960	504	543	675	0	0	0
148	1,269		1269	660	711	885	272	81	353
149	770		770	469	489	568	15	898	913
150	0		0	0	0	0	0	1981	1981
151	1,801		1801	790	851	1339	0	28	28
152	84		84	33	35	78	0	85	85
153	514		514	197	201	406	0	34	34
154	340		340	141	144	296	0	35	35
155	345		345	130	136	320	0	71	71
156	208		208	91	95	204	0	26	26
157	193		193	70	77	138	41	304	345
158	191		191	71	75	192	0	5	5
159	583		583	355	370	424	0	116	116
160	1,848		1848	701	767	1319	5	56	61
161	256		256	91	96	234	0	0	0
162	910		910	362	380	663	18	31	49
163	798		798	385	421	615	43	68	111
164	297	84	381	117	123	312	0	61	61
165	78		78	40	43	57	24	198	222
166	0		0	0	0	0	9	179	188
167	11		11	7	7	11	0	0	0
168	11		11	7	7	11	0	16	16
169	0		0	0	0	0	25	134	159
170	3		3	1	1	2	0	0	0
171	54		54	20	21	40	0	2	2
172	68		68	26	28	71	0	0	0
173	8		8	3	3	8	0	25	25
174	352		352	146	155	324	6	42	48
175	246		246	135	139	229	106	462	568
176	63		63	27	28	51	2	28	30
177	0		0	0	0	0	290	198	488
178	405		405	262	281	282	619	433	1052
179	464		464	218	234	406	105	732	837
180	1172		1172	661	706	1250	137	149	286
181	0		0	0	0	0	62	146	208
182	3		3	1	1	0	461	1019	1480
183	0		0	0	0	0	218	84	302
184	0		0	0	0	0	337	10	347
185	90		90	36	37	73	0	49	49
186	709		709	269	287	665	0	47	47
187	442		442	163	172	392	8	4	12
188	512		512	185	196	456	33	42	75
189	312		312	113	117	289	2	54	56
190	121		121	42	43	98	0	20	20
191	466		466	184	188	377	0	34	34
192	597		597	198	202	511	8	79	87
193	316		316	114	118	265	0	5	5
194	433		433	160	165	462	0	7	7
195	593		593	235	244	477	24	45	69

Traffic	Po	opulation		Dwelling	g Units	Vehicles		Employment	
Zone	Households	Group Quarters	Total	Occupied	Total	Available	Retail	Non-Retail	Total
196	344		344	181	201	328	5	1	6
197	522		522	180	198	445	0	24	24
198	101		101	36	38	100	0	0	0
199	91		91	43	45	80	0	0	0
200	0		0	0	0	0	0	150	150
201	1,494		1494	573	629	1180	4	21	25
202	39		39	15	17	31	95	34	129
203	208		208	80	82	165	32	49	81
204	639		639	245	250	504	0	13	13
205	77		77	32	33	67	0	0	0
206	665		665	276	293	579	24	114	138
207	232		232	96	106	201	0	30	30
208	901		901	335	347	703	3	19	22
209	1,042		1042	401	417	920	0	15	15
210	1,356		1356	502	522	1024	0	5	5
211	915		915	357	368	697	0	29	29
212	246		246	96	99	187	0	1	1
213	465		465	204	219	346	0	9	9
214	1,006		1006	441	473	748	74	109	183
215	0		0	0	0	0	66	110	176
216	636		636	279	290	473	0	1	1
217	60		60	22	23	47	0	98	98
218	200		200	66	69	141	0	0	0
219	1,602		1602	587	593	1261	0	106	106
220	876		876	321	336	690	0	83	83
221	0		0	0	0	0	0	104	104
222	776		776	241	252	589	0	10	10
223	595		595	234	252	327	133	162	295
224	0		0	0	0	0	165	15	180
225	0		0	0	0	0	7	36	43
226	764		764	342	365	671	0	32	32
227	623		623	279	298	547	0	2	2
228	591		591	235	251	431	14	183	197
229	1,159		1159	483	543	819	21	125	146
230	161		161	67	75 77	113	0	900	900
231	166		166 7	69	77	117	14	14 5	28
232	7 5		7 5	3 2	3 2	5 3	0		5 571
233	5 0		0	0	0		5 157	566 106	571 252
234	2,108		2108	681	693	0	157	196	353 148
235		101				1402	0	148	
236 237	113 367	104	217 367	49 145	51 151	110 298	0 14	556 16	556 30
237 238	367 727		367 727	287	310	298 588	3	83	30 86
236 239	0		0	0	0	0	3 7	63 45	52
239 240	0		0	0	0	0	<i>7</i> 6	45 1579	5∠ 1585
240 241	0		0	0	0	0	0	0	0
241	0		0	0	0	0	0	0	0
242	421	24	445	252	269	372	746	172	918
244	0	4 7	0	0	0	0	0	1	1
477	J		J	J	J	J	J	ı	1

Traffic	Po	opulation		Dwelling	g Units	Vehicles		Employment	
Zono	Households	Group Quarters	Total	Cooursiad	Total	Available	Retail	Non-Retail	Total
Zone 245	4	Quarters	Total 4	Occupied 2	Total 2	3	0	0	Total 0
245 246	4 612		4 612	2 326	2 354	3 495	22	6	28
	5			2			0	75	26 75
247	0		5 0	0	2 0	3 0			75 147
248 249	187		187	82	85	139	0	147	
			500				0	0	0
250	500			183	187	409	0	5	5
251	213		213	78	79	167	0	8	8
252	123		123	45	46	97	0	10	10
253	34		34	12	13	28	0	92	92
254	283		283	88	90	215	0	0	0
255	76		76	28	29	60	0	9	9
256	276		276	109	112	251	10	181	191
257	446		446	166	172	349	0	18	18
258	565		565	209	219	427	0	5	5
259	649		649	262	278	424	10	150	160
260	74		74	33	37	56	0	0	0
261	420		420	164	175	384	0	3	3
262	98		98	39	40	79	0	1	1
263	575		575	218	224	539	0	73	73
264	778		778	295	303	729	0	134	134
265	553		553	200	212	493	0	17	17
266	210		210	76	79	194	0	1	1
267	100		100	35	36	82	0	25	25
268	550		550	191	195	444	9	46	55
269	167		167	58	59	135	0	11	11
270	332		332	131	137	268	0	44	44
271	486		486	192	200	393	7	85	92
272	194		194	70	72	163	0	41	41
273	325		325	124	127	285	0	4	4
274	508		508	189	194	434	0	143	143
275	80		80	40	41	87	0	8	8
276	252		252	95	99	220	1	35	36
277	330		330	131	139	266	0	7	7
278	98		98	39	41	79	16	59	75
279	0		0	0	0	0	0	0	0
280	387		387	193	210	251	56	12	68
281	363		363	181	196	235	61	10	71
TOTAL	139,722	15,126	154,848	60,465	63,816	110,732	17,758	77,236	94,994

Socioeconomic Data for 2030 (Forecast)

Traffic	Po	opulation	,	Dwellin	g Units	Vehicles	Emplo	yment	
Zone	Households	Group Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
	00		00	47	F.4	00	40	004	0.44
1	60		60	47	51	39	10		341
2	196		196	154	165	128	58		692
3	14		14	11 85	12 95	9	90		980
5	150		150	97	105	104	98		1487
6	206 787	56	206 843	424	478	120 482	30 277	350 1724	380 2001
7	357	31	388	232	264		63		600
8	1016	21	1037	608	654	723	42		405
9	1075	21	1037		560	716	12	55	67
10	211		211	98	104		77	517	594
11	903	32	935	473	524		24		235
12	989	32	989	478	505		100		434
13	917		917	459	483	635	25		110
14	434	142	576		270	325	12	240	252
15	392	1 12	392	224	246	271	0	408	408
16	97	96	193	57	59	81	11	2233	2244
17	359		359	216	237	330	565		1456
18	35		35	24	26	29	844	1576	2420
19	1053	132	1185	384	419	488	90	1095	1185
20	72		72	35	37	57	630	1276	1906
21	672		672	299	320	530	0	24	24
22	907		907	429	457	778	76		210
23	0		0	0	0	0	115		256
24	0		0	0	0	0	0		50
25	513		513	271	289	353	42	882	924
26	532	232	764	217	227	440	3	60	63
27	1269		1269	598	626	1091	29	418	447
28	1250		1250	561	583	937	67	189	256
29	189		189	100	107	138	40		251
30	472		472	231	246		37	49	86
31	1116	2	1118	561	588		28		94
32	13	130	143	7	7	15	12	834	846
33	76		76		34		55		508
34	169		169	82	85		55		512
35	321		321	149	154		71	15	86
36	1500		1500		739	1309	9		48
37	2124		2124		811	1284	7	133	140
38	1068		1068	532	571	1030	8		67
39	0		0	0	0	0	475		1350
40	90		90	33	34	60	596	296	892
41	950		950	398	408	954	0	30	30
42	388		388	155	161	373	5		51
43	652		652	257	269	561	5		88
44	792		792 167	312	326	745	12	74	86
45 46	167 0		167 0	89 0	91 0	200	0 621	13 460	13 1081
46	1350		1350		588	1315	021		96
48	989		989	401	417	957	8		45
49	318		318		171	218	35		510
50	632		632		350		40		122
50	032		032	323	330	4/0	40	02	١٧٧

Traffic	Po	opulation		Dwellin	g Units	Vehicles	Emplo	yment	
Zone	Households	Group Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
51	554		554	244	264	448	0	63	63
52	639		639	365	389	505	2	163	165
53	765		765	373	397	589	36		111
54	678		678	303	317	596	11	124	135
55	1000	28	1028	440	463	730	27	72	99
56	0	20	0	0	0	0	286		713
57	477		477	220	233	399	0	2	2
58	792		792	398	431	807	22	67	89
59	933		933	463	481	863	0		121
60	1102	14	1116	577	603	845	1	29	30
61	1013	13	1026	523	547	777	85		213
62	0	13	0	0	0	0	13		3639
63	156		156	107	115	127	303		754
64	1211	142	1353	559	594	1014	24		223
65	395	142	395	183	193	307			117
66					24	307	0		
	49		49	23					544
67	0		0	0	0	0	406		540
68	137		137	80	84	149	21	251	272
69	4		4	2	2	3	30		1326
70	90		90	45	48	58	707	897	1604
71	1399		1399	700	724	1133	128		222
72	1686		1686	736	774	1342	0		19
73	0		0	0	0	0	246		1311
74	5		5	3	3	8	236		1773
75	0		0	0	0	0	2030		2136
76	1191		1191	471	482	1042	0		87
77	1907		1907	836	862	1448	67	84	151
78	0		0	0	0	0	0		440
79	1645		1645	964	1176	1492	15		41
80	0		0	0	0	0	24		544
81	10		10	5	5	6	519		1223
82	1118		1118	409	421	738	45		171
83	1146		1146	571	605	737	82	131	213
84	1342		1342	759	827	1198	132		355
85	135		135	58	62	122	0	21	21
86	0		0	0	0	0	0	1469	1469
87	410		410	184	218	481	0	85	85
88	79		79	37	40	114	0	163	163
89	2516		2516	1,166	1246	1553	437	490	927
90	2221		2221	927	974	1349	0		71
91	2213		2213	1,001	1102	2051	40		153
92	225		225		113	209	50		162
93	2302		2302	1,009	1108	2233	50		361
94	3001		3001	1,426	1498	2294	100		332
95	973		973	403	415	818	45		139
96	1077		1077	501	525	883	24		85
97	19		19		9	16	71	646	717
98	2		2	1	1	2	20		867
99	2		2	1	1	1	13		750
100	0		0		0	0	0		4422
101	59		59	23	24	41	40		544
102	53		53		21	68	0		180
103	926		926		375		33		145
103	920		920	349	3/3	009	33	112	140

Traffic	Pe	opulation		Dwellin	g Units	Vehicles	Emplo	yment	
Zone	Households	Group Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
104	478		478	169	174		0	0	0
105	1573		1573	591	634		60		197
106	873		873	359	366		0		55
107	1415		1415	550	579	1229	15	35	50
108	5844		5844	2,271	2393	5282	10	16	26
109	136		136		82	207	0	364	364
110	661		661	242	246	620	843		1313
111	483		483	243	246	747	256		400
112	1308	217	1525	619	663	1383	270		491
113	2344	27	2371	1,205	1220	2012	200		574
114	557	1,223	1780	289	291	948	158		2108
115	2		2	1	1	2	0		3619
116	2059		2059	1,026	1056	2217	0		578
117	1452	48	1500		801	1060	0		12
118	2143	174	2317	901	959	1754	122	186	308
119	146	177	323	68	70	104	99		5257
120	541	1,442	1983		237	607	0		471
121	0	4,595	4595		0	1263	218		1226
122	0	0.707	0	0	0	0	69		4019
123	250	3,787	4037	106	109	931	0		573
124	968	40	968		482	901	15		112
125	753	42	795		336		94		384
126	11	4.550	11	6	6	11	0		509
127	668	1,556	2224		376		0		270
128 129	853 499		853 499		493	905 449	0		30 58
130	559		559		251	552	21	84	105
131	886		886		310 427	797	5		264
132	931		931	588	609	687	<u>5</u> 40		110
133	0		0	0	009	007	397	224	621
134	1013	340	1353	345	352	785	0	418	418
135	1471	215	1686	696	727	1027	8		343
136	1509	210	1509	711	733	1523	7	12	19
137	14		14	6	6		0		225
138	13		13		7		0		473
139	168		168		75		0		0
140	197		197	102	107	215	12		31
141	47		47	20	23		9		22
142	436		436		218		49		78
143	232		232		116		0		16
144	598		598		322	587	0		0
145	987		987	436	498		0		1
146	41		41		19	39	0	0	0
147	905		905		543		0		0
148	1196		1196		711	920	302		478
149	726		726		489		15		1213
150	0		0		0	0	0		1981
151	2740		2740		1392	2247	45		123
152	524		524		239	529	10		105
153	588		588		245		0		34
154	320		320		144		0		35
155	2830		2830		1223		0		71
156	2104		2104	975	1055	2278	20	46	66

Traffic	Po	Population		Dwelling Units Vehicle		Vehicles	es Employment		
Zone	Households	Group Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
157	182	Qualters.	182	70	77	143	41	354	395
158	3257		3257	1,279	1386	3604	20		45
159	625		625	404	423	501	0		116
160	4396		4396		1976	3462	5		136
161	241		241	91	96	244	0	0	0
162	1476		1476		664	1187	23		64
163	3678		3678	1,882	2116	3124	118		411
164	2789	84	2873	1,164	1266	3232	0	l	136
165	73	0-1	73	40	43	59	104		477
166	0		0	0	0	0	39		538
167	11		11	7	7	11	0		450
168	11		11	7	7	11	275		691
169	0		0	0	0	0	80		259
170	2		2	1	1	3	0		1350
171	4727		4727	1,856	2010	3936	30		252
172	1700		1700	694	762	1955	0		0
173	7		7	3	3	8	0	135	135
174	1143		1143	503	547	1160	16		98
175	232		232	135	139	238	131	487	618
176	59		59	27	28	54	52		230
177	0		0	0	0	0	315		613
178	382		382	262	281	293	619		1177
179	438		438		234	422	155		1057
180	1182		1182	707	757	1391	157	204	361
181	0		0	0	0	0	302	606	908
182	3		3		1	0	481	1099	1580
183	0		0	0	0	0	388		577
184	0		0	0	0	0	337	10	347
185	85		85		37	76	0	49	49
186	711		711	286	306	736	0	47	47
187	440		440	172	181	430	8		12
188	483		483	185	196	474	33		100
189	295		295	113	117	300	2		56
190	114		114		43	102	0		20
191	451		451		193		0		34
192	1158		1158		423	1095	8		87
193	298		298		118		0		
194	440		440		177	516	0		5 7
195	568		568		248		34		79
196	325		325		201	341	5		6
197	516		516		208	486	0		24
198	96		96		38	104	0		0
199	86		86		45	83	0		0
200	0		0		0	0	0		180
201	2419		2419		1097	2107	59		200
202	37		37		17	32	120		504
203	295		295		124	257	107		206
204	978		978		411	853	30		98
205	80		80		36	76	0		0
206	627		627	276	293	602	59		238
207	314		314		155	301	0		80
208	916		916		375	788	3		22
209	982		982		417	957	0		15

Traffic	Po	opulation		Dwellin	g Units	Vehicles	Emplo	yment	
Zone	Households	Group Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
210	2208		2208	867	915	1839	0	5	5
211	869		869	360	371	730	0		29
212	232		232	96	99	195	0		1
213	438		438	204	219	360	0	9	9
214	1246		1246	580	627	1022	134	399	533
215	0		0	0	0	0	86	290	376
216	1046		1046	487	514	858	20	1	21
217	57		57	22	23	49	0	98	98
218	2155		2155	757	813	1675	0	30	30
219	1647		1647	640	649	1430	0	106	106
220	1055		1055	410	432	916	20	138	158
221	0		0	0	0	0	0		134
222	2029		2029	669	716	1700	0		10
223	724		724	302	327	439	133		395
224	0		0	0	0	0	290		445
225	0		0	0	0	0	7	41	48
226	1120		1120	532	575	1085	10		42
227	846		846	402	434	820	25		102
228	1396		1396	589	642	1123	59		367
229	2216		2216	979	1120	1725	71	240	311
230	297		297	131	149	231	0	900	900
231	156		156	69	77	122	14		28
232	6		6	3	3	5	600	270	870
233	4		4	2	2	4	5		581
234	43		43	24	26	41	177	276	453
235	2025		2025	694	707	1486	0		148
236	106	104	210	49	51	114	0		606
237	346		346	145	151	309	14		30
238	685		685	287	310	612	18		136
239	0		0	0	0	0	72		262
240	0		0	0	0	0	6		1835
241	0		0	0	0	0	0	0	0
242 243	0	24	0 421	0 252	0 269	0	75	300 297	375
243	397 444	24		282		388	771 125		1068 531
244	3		444 3		<u>0</u> 314		0		200
246	1222		1222	691	764		47	1106	1153
247	458		458	213	237	375	150		475
248	0		0		0	0	150		197
249	752		752	350	373	617	0		0
250	3559		3559		1453	3217	175		755
251	407		407	1,363	164		0		8
252	1737		1737	675	711	1508	15		50
253	32		32	12	13	28	0		92
254	267		267	88	90	224	0		0
255	72		72		29	63	0		24
256	1557		1557	652	688	1563	55		501
257	4786		4786		2018	4116	0		18
258	3710		3710		1571	3090	0		5
259	651		651	279	297	469	20		180
260	264		264		144	223	0		0
261	396		396		175	400	0		3
262	92		92		40		0		1

Traffic	Po	pulation		Dwelling	g Units	Vehicles	Vehicles Employment		
		Group					-		
Zone	Households	Quarters.	Total	Occupied	Total	Available	Retail	Non-Retail	Total
263	542		542	218	224	561	10	93	103
264	778		778	313	322	805	15	169	184
265	522		522	200	212	512	0	17	17
266	198		198	76	79	202	0	1	1
267	95		95	35	36	85	0	25	25
268	519		519	191	195	462	9	71	80
269	157		157	58	59	140	0	11	11
270	318		318	133	139	283	0	44	44
271	458		458	192	200	409	7	100	107
272	183		183	70	72	169	0	41	41
273	311		311	126	129	301	0	4	4
274	490		490	193	198	461	0	143	143
275	84		84	45	46	101	0	8	8
276	238		238	95	99	229	1	45	46
277	312		312	131	139	277	0	7	7
278	155		155	65	69	137	16	74	90
279	0		0	0	0	0	400	201	601
280	366		366	193	210	261	56	112	168
281	343		343	181	196	245	91	130	221
		·			·		·		
TOTAL	201,706	15,126	216,832	89,647	95,616	179,294	23,269	96,731	120,000

Appendix 8

Methodology for Calculating Year of Construction Project Costs and Federal Aid

Year of Construction

All projects were assigned an anticipated year of construction and reviewed by the County and city engineers. The TIP was the source for project construction dates thru 2011. The remaining projects originally on Table 4 (Federal Aid Projects for the Transportation Plan for 2030) were assigned a year that reflects the construction schedule from the Transportation Plan for 2025. The remaining local projects in Table 3 (Project List for the Transportation Plan for 2030) were assigned a five year range during which construction may begin. INDOT projects already reflect year of construction costs except for those projects that INDOT does not acknowledge. For those projects, footnoted below, staff assigned a five year range during which construction may begin.

Project	Location	Total Cost	Year of Const.
Lafayette			
Concord/Maple Point	Teal/US-52 to Brady	4,800,000	2009
Concord	Brady to CR 350S	3,320,000	2008
South 9th	Twyckenham to CR 350S	5,024,000	2012
South 18th	CR 350S to CR 430S	3,606,000	2010
Old Romney Rd	SR 25 to Twyckenham	1,731,000	2011
SR 25	Old Romney to Old US 231	5,145,000	2015
Old US 231	SR 25 to Beck Lane	1,538,000	2016
South 9th	CR 350S to CR 430S	4,344,000	2012
South 18th	Teal to Brady Lane	7,244,000	2020
SR 25	Old US 231 to Teal	7,705,000	2016
Beck Lane	Old US 231 to Poland Hill	4,284,000	2024
Greenbush	Elmwood to US 52	5,202,000	2018
Main Street	18th To McCarty Lane	7,286,000	2019
Earl Avenue	South Street to Teal Road	8,608,000	2026
South Street	Main Street to Earl Avenue	12,775,000	2026
Kossuth	US 52 to Farabee Drive	5,675,000	2028
Duncan Rd	N of US 52 to N 9th St Rd	3,511,000	2030
South 9th	Teal to Beck Lane	2,482,000	2015
South 9th	Owen to Teal	3,120,000	2024
Teal	S. 4th to 9th Street	4,525,000	2015
Teal	9th Street to 18th Street	4,347,000	2015
Ortman	Old US 231 to 18th Street	5,149,000	2016
TOTAL		114,771,000	
West Lafayette			
Salisbury	Meridian to Riley	1,000,000	2006
Salisbury	Riley to Rainbow	700,000	2007
Salisbury	Rainbow to Navajo	954,000	2009
Cumberland	US 52 to Yeager	1,475,000	2008
Cumberland	Yeager to Salisbury	1,598,000	2008
Cumberland	Salisbury to Soldiers Home	1,620,000	2011
Soldiers Home	US 52 to Kalberer	5,000,000	2010
Soldiers Home	Kalberer to City Limits	4,450,000	2011
Happy Hollow	US 52 to N. River Road	4,084,000	2010

Yeager	US 52 to Northwestern	1,900,000	2009
Yeager	Kalberer to City Limits	1,580,000	2010
Salisbury	At US 52	1,475,000	2011
N. River Road &	Dehart to Happy Hollow &	2,700,000	2011
Harrison Bridge	Interchange at SR 43		
TOTAL	C	28,536,000	
Tippecanoe County			
Cumberland Ext.	Cumberland ex Klondike.	5,207,000	2010
McCarty Lane	CR 550E to SR 26	6,900,000	2009
Klondike	US 52 to Lindberg	8,619,000	2012
Klondike	Lindberg to SR 26	4,569,000	2020
SR 26	US 231 to Airport Road	2,831,000	2015
Concord Rd	CR 350S to CR 430S	3,600,000	2009
Jackson Hwy	UAB to SR 26	8,312,000	2024
Morehouse rd.	CR 600N to US 52	12,347,000	2017
Concord Rd	CR 430S to CR 600S	8,656,000	2020-2025
North 9th St.	Swisher to Duncan Rd.	19,341,000	2020-2025
Jackson Hwy	CR 650W to UAB	7,323,000	2020-2025
Morehouse Rd.	County Line to CR 600N	23,964,000	2025-2030
Soldiers Home	City Limits To N. River Rd	2,212,000	2010-2015
McCormick	Lindberg to Cherry	1,900,000	2009
S. 9th	CR 430S to CR 510S	4,923,000	2010-2015
S. 18th	CR 430S to CR 510S	4,570,000	2010-2015
Cherry Ln	US 231 to McCormick Rd.	3,287,000	2010-2015
CR 500S	New US 231 to Old US 231	1,632,000	2020-2025
Lindberg	Klondike to McCormick	3,000,000	2009
Lindberg	SR 26 to Klondike	8,238,000	2020-2025
CR 500E	SR 26 to Haggerty	14,509,000	2015-2020
CR 430S	18th St. to Concord Rd.	4,071,000	2015-2020
CR 450S	Concord Rd. to US 52	10,789,000	2015-2020
S. River Road	County Line to CR 700W	17,890,000	2025-2030
CR 500N	CR 225W to CR 75E	7,265,000	2010-2015
North Yeager	Curve Correction/ 500N	2,300,000	2010
CR 300N	SR 25 to CR 750E	6,735,000	2015-2020
CR 300N	CR 750E to CR 900E	7,362,000	2020-2025
CR 350/400S	New Castle to Dayton Rd	10,895,000	2025-2030
CR 75E	CR 600N to Soldiers Home	7,053,000	2015-2020
CR 500E	CR 200N to CR 300N	4,835,000	2020-2025
CR 600E	CR 200N to CR 300N	4,875,000	2020-2025
CR 900E	CR 100S to CR 200S	4,835,000	2020-2025
CR 900E	CR 400N to CR 700N	14,725,000	2020-2025
CR 975E	Railroad to CR 1300S	10,626,000	2020-2025
CR 700W	SR 25 to Division Rd	27,674,000	2025-2030
CR 925W	CR 350N to SR 26	8,697,000	2025-2030
CR 200N	CR 400E to CR 500E	4,188,000	2015-2020
CR 550E	SR 26 to CR 100N	3,244,000	2010-2015
CR 600S	Wea Sch. Rd to CR 450E	7,556,000	2015-2020
CR 600S, 500E &	CR 450E to US 52	8,042,000	2015-2020
CR 550S			
TOTAL		329,597,000	

Durdua	Aroa	<i>Improvements</i>	
Puraue	Area .	morovements	

Williams/Harrison	S. Intramural to US 231	6,900,000	2010
Grant/Chauncey	Fowler to Williams	1,021,000	2010
Stadium	Intramural to Northwestern	4,307,000	2014
Harrison/Airport	State to S. Intramural	11,046,000	2018
McCormick	State to N. Intramural	11,962,000	2020
N. Intramural	Northwestern to Stadium	9,041,000	2023
Northwestern	Intramural to Stadium	8,604,000	2025
TOTAL		52,881,000	

Town of Dayton

Town of Dayton			
Yost Drive	Haggerty to SR 38	6,926,000	
Private Developmen	nt		
Park East Drive	McCarty to E-W Collector	3,569,000	2010-2015
Park East Drive	E-W Collector to Haggerty	3,357,000	2010-2015
Park East Drive	Haggerty to SR 38	2,257,000	2010-2015
Park East Drive	SR 38 to US 52	5,294,000	2015-2020
E-W Collector	Creasy Lane to Park East	Under	Constructed
E-W Collector	Park East to Commerce Dr. Ext.	4,725,000	2015-2020
E-W Collector	Commerce Dr. Ext. to CR 500E	3,184,000	2020-2025
Commerce Dr. Ext.	Park East to McCarty Lane	8,879,000	2015-2020
Commerce Dr. Ext.	McCarty Lane to E-W. Collector	5,034,000	2020-2025
Stable Drive	CR 550E to McCarty Lane	6,701,000	2010-2015
Stable Drive	McCarty Lane to CR 650E	3,250,000	2015-2020
Farabee Drive	Kossuth to McCarty	4,835,000	2020-2025
CR 500S	Wea School Rd. to Concord	5,042,000	2015-2020
CR 550S	US 231 to CR 50E	9,670,000	2020-2025
CR 600S	US 231 to CR 250E	25,529,000	2020-2025
Wea N/S Coll.	CR 550S to CR 600S	7,350,000	2025-2030
WL N/S Collector	CR 500N to Kalberer	10,072,000	2010-2015
WL E/W Collector	CR 100W to Soldiers Home	8,506,000	2010-2015
Yost Drive	SR 38 to CR 400S	7,064,000	2020-2025
CR 300S	Existing to CR 350S	2,765,000	2025-2030
TOTAL		127,083,000	

Indiana Department of Transportation

Lafayette West Lafa Purdue Ai County	•	114,771,00 28,536,00 52,881,00 329,597,00	00 00
TOTAL		1,253,639,000	
Prophetstown Park ¹	SR 43 to North 9th	8,188,000	2020-2025
I-65 ¹	US 231 to SR 43	52,843,000	2025-2030
I-65 ₁	SR 43 to SR 38	327,432,000	
I-65	SR 38 to County Line	151,362,000	
US 231	CR 500S to County Line	136,027,000	
US 231	US 52 to I-65	106,387,000	
US 231	SR 26 to US 52	21,907,000	
US 231	S. River Road to SR 26	35,593,000	
US 52 ¹	Cumberland to Yeager	2,398,000	2010-2015
US 52 ¹	Klondike to Cumberland	14,324,000	2015-2020
SR 43B ¹	I-65 to SR 43	31,432,000	2025-2030
SR 43 ¹	State Park Road to I-65	13,683,000	2025-2030
SR 43	At I-65	4,282,000	
SR 43 ¹	CR 725N to County Line	21,550,000	2020-2025
SR 43	I-65 to CR 725N	14,621,000	20.0 2020
SR 38 ¹	At US 52	1,836,000	2015-2020
SR 38	Through Dayton	3,220,000	2010 2010
SR 26 ¹	31st St. to west of US 52	3,148,000	2010-2015
SR 26	At I-65	7,994,000	
SR 26	US 52 to I-65	60,472,000	2010-2013
SR 26 ¹	CR 900E to County Line At US 52	16,416,000 6,404,000	2010-2015
SR 26 SR 26 ¹	CR 550E to CR 900E	25,284,000	2020-2025
SR 26	I-65 to CR 550E	9,714,000	
SR 25 ¹	CR 375W to CR 100W	31,810,000	2025-2030
SR 25 (350S) ¹	US 52 to SR 38	6,467,000	2015-2020
SR 25 (350S) ¹	Concord Rd. to US 52	9,959,000	2010-2015
SR 25 (350S) ¹	Poland Hill to Concord Rd.	10,824,000	2010-2015
SR 25 (350S) ¹	New US 231 to Poland Hill	9,834,000	2015-2020
SR 25	Hoosier Heartland	108,228,000	

West Lafayette	28,536,000
Purdue Area	52,881,000
County	329,597,000
Dayton	6,926,000
Private Development	127,083,000
State	1,253,639,000
GRAND TOTAL	1,913,433,000

¹ INDOT does not address the documented need for these projects. Some are INDOT projects that have been dropped from consideration, some are projects that APC's traffic forecasting model documents the need for the improvement on the state highway system, some are identified by INDOT as unfunded, and some are state park related projects.

Calculating Inflation adjusted Costs

The methodology used to adjust the estimated project costs to year of construction was patterned after the methodology used by INDOT. Their 2016-2030 projects were updated by escalating their base year 2002 costs to 2006 by applying a 25% inflation rate, with an additional 11% applied to bring costs up to 2007 dollars, and then a 3.5% rate was applied each year after that. For our Plan the original 2005 estimates are updated to 2006 by an inflation factor of 7% (approximately ¼ of the 25% INDOT uses because we are only updating for one year), then applying INDOT's 11% to bring the estimates to 2007, and then the 3.5% every year after that to construction. To calculate the year of construction cost estimates for projects having a range of years the second year in the five year range was used. Projects in the TIP and INDOT projects included in Major Moves were already adjusted to year of construction thus no inflation adjustment was applied.

Federal Aid Calculations

During development of the Transportation Plan for 2030 in early 2006, staff discussed the methodology for estimating what this community could reasonably expect to receive in federal STP funding with INDOT. It was decided that it should be calculated starting with the average of the last three years allocation of STP funds and then applying a 2% compounding growth factor. In the years 2004-2006 the MPO averaged approximately \$3,130,000 per year in STP funding. Applying a 2% compounded growth rate through the year 2030 provides \$105,144,000 that this community can reasonably expect to receive in federal STP funding for the duration of the Plan.